Lumleian Lectures

ON THE

PATHOLOGICAL RELATIONS OF THE VOICE AND SPEECH.

Delivered at the Royal College of Physicians, London,

BY J. S. BRISTOWE, M.D., F.R.C.P.,

SENIOR PHYSICIAN AND JOINT LECTURER ON MEDICINE, ST. THOMAS'S HOSPITAL.

LECTURE III.—PART II.

THE next case I shall quote is also one that interested me very much, and to which I gave considerable attention. It is that of a butcher, aged twenty-one, who was brought to the hospital on Jan. 13th, 1871, having just been thrown from a cart on to his head, and stunned. On admission he was insensible; both pupils were dilated, especially the right, which also responded less readily to light than the other. There was a lacerated wound on the right temple just above the eyebrow; the right eyelids were swollen, and a little blood was oozing from the nostrils; no discharge from either ear; pulse slow and full, skin cool, respiration normal. He became partially conscious in a few hours, and remained thus until the 17th, when he had a slight fit, attended with twitching of the face (chiefly on the right side) and rolling of the eyes. This was succeeded by a series of fits, occasionally following one another at very short intervals, until the afternoon of the 19th. In most of these the arms were said to have been stiff, and the left arm and leg convulsed. Between the fits he lay in a semi-conscious condition. On the morning of the 19th erysipelas appeared in the wound. This proved to be a severe attack; but had subsided by the 31st, when his general health seemed rather better than it had been previously, and his intelligence had decidedly improved. He appeared to understand what was said to him, protruded his tongue when asked to do so, and answered questions imperfectly. About this time a case or two of small-pox broke out in the hospital, and this patient took it. He passed through a mild attack, and it was after this that he came under my care. When I first saw him he seemed to be in very good health, and wholly without trace of paralysis. He could use his limbs freely; his organs of sense seemed all perfect; he could masticate, swallow, and articulate with facility. He evidently understood everything that was said to him, did in a moment anything he was asked to do, knew as well as he had ever known persons and things, and played quite well at dominoes with other patients; and, indeed, if not required to talk, read, or write, appeared to be a perfectly sound man, both mentally and bodily, except that he was somewhat inclined to be morose and ill-tempered at times. I may mention here that he had had a very fair education, that he could repeat accurately and readily every word that was dictated to him, that he retained the power of whistling and singing (or rather humming) tunes, and that, having perfect use of his fingers, he could copy (in the sense of drawing) with pen or pencil whatever was placed before him as well as ever he did, and necessarily also the forms of letters. His inability to express himself in words was very great, and, although by slow degrees he improved in this respect, he was still at the time of leaving the hospital markedly aphasic. At the early part of my intercourse with him he scarcely recalled the name of anything which was shown to him, and, when asked to give it a name, would sometimes shake his head, at other times utter a word which had no relation whatever to the object before him, recognising, however, almost invariably the error he had made. On close examination it seemed to me that it was not simply in the names of things that his memory was defective, but that there was at least equal defect in availing himself for speech of verbs, adjectives, and other parts of speech. He spoke, not in single words, but in short sentences, and I noticed that when he endeavoured to converse, there was a tendency to harp upon certain formulæ and to use the same words in the same combinations to express utterly different things. But here, again, even in the process of speaking, he appeared obviously to recognise that he was talking nonsense, would check himself, try to correct himself, and then come to a stop with a puzzled air and gesture of annoyance. The following examination, conducted some little time after he came under my observation, and after he had improved to some extent, will illustrate some of his peculiarities. A pencil was shown him, which he named correctly. A quill-pen he called after some hesitation a "pencil," then, knowing he was wrong, added, "I used to keep a lot of them." He recognised the name "quill-pen" when it was uttered. He could not name a jug, but knew it was not a dog or a plum-pudding, and picked out the word "jug" when it was repeated with several other words. He failed to name a hat and several other articles of dress, but identified the names unerringly when he heard them. After a short time he was re-examined on the same subjects, and still failed in almost every case to recall the appropriate names. When shown the jug he could not name it, but said "I broke it," not meaning, however, that he did actually break it. He could say some of the letters of the alphabet consecutively, but could not remember even a fragment of the Lord's prayer, or any text out of the Bible, or any verse of poetry. When asked how old he was, he said, after thinking for at least a minute, "price," but when asked a second time, answered correctly "twenty-one." He was told to count, and immediately, beginning at one, counted correctly up to forty. He was then stopped and asked to begin at one hundred, from which he went on correctly until he was again stopped. He said twice two was thirty. Asking him something about his family, he replied that his "sister came in at two," meaning that she died when he was two. He was then requested to name (without giving him much time to think or any opportunity of correcting errors) the letters of a sentence in a newspaper. The values which he assigned to them are as follows: When about thirty years—mhth hthtt thwht7 h2ht7. He was really, as I shall presently show, more skilful at recognising letters than the result just given would lead one to suppose; but this hurried examination illustrates, though with some exaggeration, the tendency he had to repeat words and passages which were, so to speak, ready to hand. Before he left the hospital he had learnt the names of a good many common things round about him, but his power of joining in conversation or of expressing his meaning in sentences had improved on the whole but little.

He was always very fond of trying to write letters. But there was little difference in them, and they were always failures. He usually commenced by writing "My" pretty correctly, followed by "dear"; and then, as a rule, lapsed into a meaningless combination of letters or up and down strokes. He could not write to dictation, and he could not read; but he could copy with ease written words that were placed before him.

On one occasion I opened a large prayer-book, and, pointing to a verse of one of the Psalms, asked him to read it. This he could not do; and I then asked him to copy it letter by letter—meaning, of course, that he should copy the actual forms of the letters. To my surprise, he translated it accurately, and without hesitation, into written characters in his proper handwriting. The verse was, "Plead thou my cause, O Lord, with them that strive with me." I now asked him to read what he had written; and after careful study, the only words which he attempted were "O Lord" and "them," the latter of which he called "then." I then spelt each word in succession for him, asking him to name them; and again he only recognised "Lord" and "them." Subsequently I asked him to name each of the printed letters of the verse he had copied, and afterwards each of the letters he had written. The result was as follows:—

Names of printed letters: Plehr thor mr chust O loht hath ther that stroue with he.

Names of written letters: Plea- ther he cahst O lort woth then thet c-nile wish he.

On several occasions I repeated this latter kind of examination, and always with the same result.

He now and then pored over the newspapers; and on one occasion he had a paper with a long account of the opening of St. Thomas's Hospital. I tried to ascertain if he had any understanding of what he appeared to be reading about. I need scarcely say, perhaps, that he could not read this out loud better than he had read the prayer-book; but it struck me that he might nevertheless understand the words which he could not utter. He certainly seemed to look through it

with interest. To test him, I asked him to point out in the report where certain statements (selecting such as might be supposed to have some little interest for him) were to be found. It seemed to me, however, that his condition was very much like that of a person trying to read a book in a foreign language, of which he only knows a few words. He singled out, for example, the names of certain persons connected with the hospital, and pointed out here and there a sentence the meaning of which he either understood or had a glimpse of. I feel sure he had no general understanding of what he was reading. The only other point in regard to which I examined him carefully was his knowledge of figures and arithmetic. I have already mentioned that he could count correctly; he could also, when I first saw him, write down figures correctly from dictation. Further, he could do simple addition sums. In doing addition of money he was less accurate; and, curiously, would often name the right figure while writing down a wrong one, or conversely, would name a wrong figure, but write down the proper one. He left the hospital in July.

The points of chief interest in this case seem to me to be the association of greatly impaired power of recalling words and their elements, of speaking or writing them, of repeating vocally, or of understanding written or printed language, and of writing to dictation, with the perfect capability of repeating all sounds dictated to him, and of understanding them, perfect capability of copying any writing that was placed before him, and even of translating printed words into their written equivalents, without, however, understanding them, the retention of the musical faculty, and in some measure that of calculation, and the retention of memory for other things than words, and apparently perfect comprehension of all that was going on about him. It is of course a matter of speculation as to where the cerebral lesion was in this case. There were no paralytic phenomena to guide us. The injury to the right side of the head, associated as it was with subsequent erysipelatous inflammation and aggravation of head symptoms, might seem to point to lesion of that side. On the principle of *contre-coup*, however, it is extremely probable that the part actually injured was the surface of the left cerebral hemisphere, somewhere in the region supplied by the middle cerebral artery; in other words, in that area which includes the several centres presumably concerned in speech. Broca's convolution was probably involved directly. Beyond this I shall not go, excepting to remark that it is easy, with some such diagrams as I have placed before you, to explain theoretically most of this patient's mental and linguistic peculiarities.

T. R——, a man thirty-nine years of age, was admitted under my care on Jan. 29th, 1872. He had been attacked about ten weeks previously with a fit, due, I believe, to extravasation of blood, from which he emerged completely paralysed on the right side, and utterly unable to speak even a syllable. In the course of a fortnight he had improved so far as to be able to walk with assistance, and later he began to say a few words; but up to the time of admission he remained unintelligible. His words were few and misapplied; he could not spell out words, for his friends tried him with a box of letters; and his attempts to write with the left hand resulted, it was said, only in the repetition of the word "the" over and over again. When I first saw him his paralysis was incomplete, and he could not employ the right hand for any useful purpose. He understood very imperfectly what was said to him, although he put out his tongue when asked. He could not repeat words to dictation, but had a series of words ready to hand, which he uttered with more or less earnestness and volubility when he wished to speak or answer a question: they were—"'stablish," "can't," "simple," "can't afford it," "opposite," "can't see," "yes," and "no." He did not attempt to name, and probably could not name, any object which was placed before him; nor could he write. For some little time after he came in there was gradual improvement. His vocabulary extended; and this extension was partly due to persistent instruction on the part of the sister of the ward, who taught him to say a variety of words and sentences—such as "good morning," "glass of wine," "St. Paul's," "Prince of Wales," and "Princess." But he had a tendency to curtail or alter the words, so that "Prince of Wales" became "iss of Wales," and "Princess" "concess" and "cess." He learnt also to say "sank you, sir." As he improved in other respects, his power of repeating words dictated to him likewise improved; but there was always more or less uncertainty in this respect. And even when he left the hospital, at the end of April, although he had managed to learn and retain a good many words that had been taught him by constant repetition, and although he could often name common objects readily, he more often failed, and failed even to some extent to recognise that a suggested word was erroneous. Thus, a few days before he left, he named a watch, spectacles, hat, and coat, but could not name a cap; and when asked if the sister's cap was a nightcap, assented, and then looked sheepish; called my nose "spectacles"; could not name a pen or an inkstand or a key, and when asked if the last was a lock, replied "yes." When puzzled, he would frequently exclaim, "Oh dear, oh dear!" There were a few additional points of interest in his case. At first he did not appear to be able to write at all, but once or twice I got him to make the attempt to copy with his left hand. I drew a geometrical figure, for example, and tried to explain to him that I wanted him to imitate it. On the first occasion he simply drew a series of indefinite and meaningless lines. Subsequently, however, he reproduced it with an obvious attempt at imitation, but imperfectly, as a young child might do. I drew also a capital Roman "A" and one or two other easy letters, which he copied, as one might have expected, with moderate success. I then drew a hasty caricature, consisting of a couple of circles for the head and body respectively, with straight lines for the arms and legs, and asked him to copy it, which he did. He was sitting at a table at the time, with a good many students and other persons around him, and, on the impulse of the moment, I suggested to him to take the portrait of some one standing opposite. He at once drew such a figure as he had drawn before, and then, with a sudden twinkle in his eye, added to the body a short downward stroke between the strokes intended for legs. Latterly, though he could not write spontaneously, or to dictation, he reproduced in writing two words out of a sentence in the prayer-book which was placed before him. When first admitted he did not appear to recollect anything that he had learned; but when he had recovered the use of language to some extent I found that he was able to count up to ten or twelve, and that he could repeat the Lord's prayer in a fashion; that is to say, he would utter a kind of jargon which was, for the most part, meaningless, but in which could be detected here and there actual words of the prayer, and here and there words or sounds which were imperfect or remote reproductions of the actual sounds. At any rate, the ear could follow him, and it was generally possible to recognise the particular sentence he was uttering. I do not think that he could read; at any rate, he could not point out letters or words; and although on one or two occasions he apparently read the Lord's prayer in the same manner as he repeated it, I am inclined to think he said it chiefly from memory, for once, after completing the prayer which was before him, he added to it (as though he were reading it) the doxology, which was not before him. Shortly before he left the hospital he sang, at my request, "God save the Queen." The tune was satisfactory; the words, of course, were inaccurate, and only partly distinguishable.

There are some striking resemblances, and, at the same time, some important distinctions between this case and the previous one. In both there was marked inability to express themselves in spoken words, to read and to write, and in both the capacity to sing survived, at any rate to some extent. But whereas in the former case the patient could speak unerringly to dictation, and always knew the right word when he said it or heard it, and had a clear comprehension of everything that was said, and of all that was going on about him; in the latter case there was a difficulty, even at his best, in repeating words, he frequently used words in an entirely wrong sense without appearing to know it, and there seemed to me to be also a marked failure of his general intelligence. He could not, I think, do simple arithmetical sums as the other did; but he recollected much better than he, not, perhaps, the actual words of the Lord's prayer, and of the things which he had learnt, but rather the general sound or rhythm, as a young child will sometimes do. As I stated at first, I have reason to believe that the patient was suffering from the results of hæmorrhage into the left hemisphere, which was probably situated as usual in and external to the corpus striatum, and so affected the surface of the brain less directly than by pressure and interruption to the fibres passing from the surface to the central ganglia.

S. A. L——, a married woman, aged about fifty, came under my care on the 12th of last July. Her history was imperfect; but it appeared that she had been abroad, that she was a

woman of some education, and that for three months she had been confined to the house with rheumatism. On the day of admission she had a fit, and was brought to the hospital in a state of almost complete unconsciousness. It was ascertained that there was a systolic murmur at the apex of the heart; that there was complete right-sided motor paralysis and hemianæsthesia; and that the left pupil was contracted. At this time the face was turned strongly to the left side. During the next few days consciousness returned to a considerable extent and she began to recognise those about her; but the right arm and leg remained absolutely without power of voluntary motion; hemianæsthesia was complete up to the middle line; reflex action could, however, be readily excited by touching the hand, foot, or eyelid; the right pupil remained more dilated than its fellow, though both acted to light, and it was determined, beyond all doubt, that she was totally blind of the right eye. She understood very imperfectly what was said to her, and did not attempt to utter articulate sounds, or even to protrude her tongue beyond the teeth. About three weeks after admission she began to suffer severe pain in the right arm, especially when it was moved, and frequently screamed out. There was no rise of temperature at this time. A day or two later she spoke for the first time, replying to all interrogations "stomach," "stomach." From this time there was gradual recovery of sensation in the right side, associated with gradually increasing rigidity and pain in the arm and leg on passive movement; and the sight of the right eye returned; but there was no restoration of voluntary power. She certainly improved in mental condition, yet she continued to say "stomach," and occasionally "no," in answer to all questions. Sometimes she would pause and apparently strive to use other expressions, but it always ended by the word "stomach" slipping out. I shall not pursue the history of this case in chronological order, and may at once say that she remained under my treatment until late in February of this year, when she was discharged at her own request; that during this time the paralysis of the arm and leg continued absolute, associated with rigidity and pain on movement; that her general health remained good; and that, although rapid improvement took place in her power of speech for a short time after improvement began, it reached only a certain point, and for the last four or five months there was very little appreciable change in this respect. Her difficulty in naming things was always very great. She could only rarely designate correctly things that were shown to her, and almost invariably failed to name her thumb, fingers, nose, eyes, and ears. On one occasion, when shown a pen she called it "sixpence"; on another she misnamed it "thumb"; and when asked its use, answered, "write a pen with," but still could not name it; and on another she made no apparent attempt, but exclaimed, "gone out of mind," "stupid." Once when I asked her to name her nose, she called it "eyes"; when, however, I pointed to her eyes, she also replied "eyes"; subsequently she called nose "bears." At the same time she became puzzled about her teeth, lips, tongue, &c., and presently exclaimed, "I've lost those faculties." But it was curious that on several occasions when I showed her well-pronounced colours she named them correctly with scarcely a mistake, and that generally she was equally accurate as regards the naming of pieces of money. Proper names were always a special difficulty with her. On asking her her own name she generally could not give it. Not unfrequently, however, she would answer "Sarah Ann," which were her Christian names, and then stop. Occasionally by a sudden impulse she would add "Harris" (this being her maiden name), or L——, the name of her present husband. Much more commonly she could not think of these words, and generally forgot them a few seconds after she had said them. When the latter names were mentioned to her she was often in doubt as to which of them was the right one. Once she said her name was "tablespoon." She was often very talkative, and would sometimes utter long sentences which were quite appropriate, sometimes expressions which were altogether wide of the mark, and still more frequently an unintelligible gabble which appeared to be divided into words and sentences, and which came out with extreme volubility. It was interesting that she would often talk nonsense, or continue her gabble, for a considerable length of time, with great earnestness, under the evident impression that she was expressing her thoughts in intelligible language, and yet that she would occasionally check herself, and apparently recognise that what she was saying was meaningless. In November she was made the subject of a clinical examination, and was removed for that purpose in a lift from her own ward to the one above it. This excited and alarmed her very much, and when I saw her after her return, she poured out a flood of incoherent sounds, among which could occasionally be detected such expressions as "Lord 'a mercy," "never shall forget it." It is worth noticing that the candidate to whom she was allotted, after investigating the case for some time, came to the examiner and said he could make nothing of her, for she was a foreigner, and he did not understand her language. On one occasion when she was thus speaking unintelligibly, I interrupted her by asking if she called it English, to which she replied, "I don't think it is, but I can't read." At another time, when asked how she was, she said at once, "I feel awfully cold, and you look as though you were cold." I tested her several times in regard to letters and numerals. On one occasion she counted up to seven, and then stopped; she also said the first three letters of the alphabet, then added *e* and came to a standstill. I asked her how much 10 times 10 was, when she exclaimed, "Oh, dear! too long; you astonish me!" I then tried to make her repeat the alphabet after me. Many of the letters she said correctly, but many she mispronounced; in place of some she said "yes," "no," "one," "two," or some other word, and at times, instead of repeating the letter I dictated, she went on to the next. I subsequently examined her on the Lord's prayer. I asked her if she could say it. Her reply was, "I can't see to-night; I never could." I urged her to try, and she said, "Lord, and of the—oh! I can never get through it." I then suggested, "Our Father," which she repeated, added a quantity of unintelligible stuff, and wound up with "I'm sure I can't." Her difficulty and uncertainty in reading and distinguishing letters were quite as great as those in speaking. Once I showed her a ticket printed in large type, to the following effect: "St. Thomas's Hospital.—No article of food is to be brought into the ward or given to any patient without the permission of the sister," &c. She said, "No medicines brought into the gallery without"—. Subsequently she read the word "Thomas." But she did not recognise all the words, and could not point to a single letter or name one. Shortly before she left the hospital, I printed her name and my own, together with several other words, in large capitals, and placed them before her. She picked out her own name, and read it, "Sarah Ann L——." But a day or two afterwards, she read the same words as "Sarah Ann Harris." She made out the "Dr." prefixed to my name, but could not read the name itself. She knew, however, that it was my name. At another time, when trying to read unsuccessfully, she exclaimed, "I have it in my head, but cannot say it," and several times exclaimed, "Oh dear! oh dear!" with a look of perplexity and annoyance. On one occasion I tried to find out if the flavours of things would recall their names, and I placed successively on her tongue sugar, salt, and mustard. She did not at all approve of the experiment, which failed; and when she tasted the mustard, she exclaimed vehemently, "stinking stuff!" I several times asked her to try and sing, and at length prevailed on her to strike up "God save the Queen;" the words were imperfect, and there was a total absence of musical inflexion. I must add that, although she evidently understood a good deal of what was said to her, there was, even to the last, much uncertainty in this respect; that only two or three days before her discharge she was hopelessly puzzled with respect to the actual meanings of the words "nose," "eyes," "ears," "lips," "tongue," "teeth," and "hair"; and that, although she could generally put out her tongue when told to put it out, she would often point to her nose or eyes when asked to point to her tongue.

As regards the morbid anatomy of this case, there is good reason to suspect, not only from the mental symptoms, but from the association with complete motor hemiplegia of hemianæsthesia and loss of sight in the right eye, that the middle cerebral artery was obstructed at its commencement, and that consequently a large extent of cerebral substance, including Broca's convolution, and the acoustic and optic perceptive centres, had undergone softening. The patient's symptoms, which were much like those of the case last described, were in many respects such as might be expected under the circumstances; especially if it be assumed that the functions of this part of the brain were impaired but not absolutely destroyed, or, what is more likely, that the functions of these

parts being to a large extent annulled, their linguistic duties were supplemented by the inefficient correspondingly situated region of the right hemisphere. She had difficulty and uncertainty in understanding both spoken and written words, and in repeating words dictated to her. She had a similar difficulty and uncertainty in naming things which were shown to her; and although she at times uttered appropriate groups of words, she much more frequently used erroneous words or spoke a senseless jargon, without knowing that she was talking nonsense. Her general intelligence was much less seriously impaired than her knowledge of language might have led one to suppose.

The last case which I shall venture to narrate is chiefly interesting from the fact that it adds one to the list of cases in which left-sided hemiplegia in a left-handed man was attended with typical aphasic symptoms.

J. W——, twenty-six years of age, came under my care on the 17th March, 1874. He had been attacked with rheumatism between four and five weeks before. A fortnight later, when his rheumatism had subsided, he was seized suddenly with loss of speech and incomplete paralysis of the left side. He could walk from the first, and from the first could say only the words "little," "yes," and "no." On admission he presented partial paralysis of the left side. He could walk, but the leg was weak and dragged; he could not grasp so strongly with the left hand as with the right; the mouth was drawn to the right and the tongue protruded to the left; there was no impairment of sensation. A well-marked systolic murmur was audible at the apex, and bronchitic râles were abundant over both lungs. His vocabulary was limited to "yes" and "no," and "little, little," which he repeated volubly and with energy in reply to all questions. For the most part he failed to repeat words which were dictated to him, but occasionally short easy ones, such as "blue" and "red," slipped out as if by accident. He did not understand all that was said to him; laughed when I asked him if he was one hundred years old, and said "No"; but said "Yes" seriously when I inquired of him if he was two. When told to put out his tongue he put it out, but when asked to grasp my hand or to shut his eyes, he still put out his tongue. He could not name any object. I ascertained that he had not learned to read or write, and that he was left-handed. I tested this latter statement repeatedly by making him use a knife and fork in my presence, when invariably, notwithstanding the comparative weakness of his left hand, he used that for cutting. He improved in respect of speech from the time of admission onwards. He gradually acquired the power of uttering a few sentences, and of counting, but to the last had scarcely any power of naming; moreover he had a marked tendency to mispronounce consonants, and especially to replace those situated at the beginnings of words and syllables by *l* or *b*. He also became more ready in repeating words dictated to him, with the exception that *l* and *b* largely replaced other consonants. In repeating the alphabet to dictation, most of the explosive consonants were called *b*. Latterly he appeared to understand everything that was said to him. Unfortunately, while the patient was improving mentally and as regards speech, symptoms referable to his valvular lesion rapidly developed. These became serious about the 4th of April. Pulmonary apoplexy with hæmoptysis and difficulty of breathing, enlargement and tenderness of the liver with jaundice and vomiting, albuminuria, and general dropsy successively supervened, and he died on the 27th.

The post-mortem examination was made on the following day. The lungs were congested, and contained several recent apoplectic clots. The liver was rather small and soft, but somewhat bile-stained, and in a nutmeg condition. The spleen contained one or two hæmorrhagic blocks. The kidneys were hyperæmic, especially in their medullary portions, and one presented an old depressed block. The heart was hypertrophied, especially on the right side, and recent vegetations, forming in some places pendulous masses, were attached to both the aortic and the mitral valves. The aortic valve prevented regurgitation, but the mitral orifice was contracted, and the valve was incompetent. A secondary branch of the right middle cerebral, near a bifurcation, was obstructed by an embolus, which was as large as a pin's head, and the region to which the obstructed system of vessels led was yellow and soft, while the pia mater over it was thickened, opaque, and adherent. The affected region included the posterior part of the third frontal convolution, a small portion of the second frontal above it, the lower parts of the anterior and the posterior ascending parietal convolutions, a small patch of the supra-marginal convolution, and a good deal of the adjoining first temporo-sphenoidal, together with the convolutions of the island of Reil. The right corpus striatum was a little yellower than the other, and possibly softened. But the changes presented by this body were very slight.

In this case, as generally occurs in cerebral embolism, and as might have been supposed from the linguistic symptoms presented during life, a somewhat extensive area of the surface of the brain had undergone softening. The diseased area included, in fact, not only the recognised speech centre, but also a portion of the centre for visual perceptions, and a considerable extent of the auditory centre. His symptoms were much like those exhibited by S. A. L——, in whom also there is reason to believe that the cerebral affection was due to embolic softening, and was of wide distribution.

REMARKS ON THE CLIMATE OF DAVOS-PLATZ.

BY ARTHUR HILL HASSALL, M.D. LOND.,
FOUNDER OF AND CONSULTING PHYSICIAN TO THE NATIONAL HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST.

THERE is a fashion about health resorts as about most other things. For a time one particular place is recommended; after a while the reputation of this begins to wane, and another comes into favour. This remark applies especially to Davos-Platz, which it is now the fashion to recommend. Unfortunately but too often the recommendation of any particular place is, in the first instance, based upon an imperfect knowledge of the facts, and it is only when these have become fully ascertained that a reaction occurs, such as, I believe, will ensue in the case of Davos-Platz. I was very glad to read the discussion relative to this place recently reported in THE LANCET, although this was very incomplete, and left much room for further and more conclusive data. Still, the discussion has been productive of good, and has shown the medical profession that the greatest possible care and discrimination must be exercised in the selection of the cases sent to Davos-Platz.

From the facts elicited it was proved that the cases likely to be benefited by a winter at Davos were those in which phthisis was either threatened or in a very early stage, where the digestive powers were not too much impaired, and there was a considerable amount of constitutional vigour; but, on the other hand, that the climate was unsuited to cases of advanced phthisis, particularly where the constitution had become impaired by the disease, and the capacity of respiration greatly lessened. Now phthisis is, unfortunately, one of those diseases which is rarely discovered or excites much attention until considerable mischief has been done, and until the disease has taken a strong hold on the system. The great majority of cases which come before the physician are those of advanced phthisis in which softening has taken place, and where cavities exist.

Some years since, having made a fair recovery from a pneumonic attack, I visited the Upper Engadine, the valley of the Davos, and the lower Engadine. Davos, even at that time, had acquired some degree of reputation, principally among Germans, as a health resort, and the impressions which I then derived, and which have been more recently confirmed by the observations of others, have induced me to write the present article.

I left London in the beginning of August, the weather being hot and sultry. On nearing the Upper Engadine two or three days afterwards, snow was falling fast, and the diligence entered Samaden covered with it; in the brief space of a few hours one had passed from summer to winter. I found the hotel full, and had to sleep in a large bedroom over a cow-house, without covering to the floor and scarcely any to the bed. The days were very short; it was intensely hot in the sunshine, which, however, lasted a few hours only, and equally cold out of it. At this elevation (over 6000 feet) my circulation and respiration became hurried, my breathing so short that I was filled with apprehension, and altogether I felt so depressed, nervous, and uncomfort-

able, that it was only by the exercise of great self-control that I was able to remain in the Upper Engadine for a few days. On making any slight exertion or attempting any ascent, I became exceedingly breathless. What with this difficulty of breathing, being scorched in the sun, chilled in the shade, and still more chilled at night, I was glad enough to escape from the Upper Engadine, notwithstanding all its glorious mountain and lake scenery. I afterwards repaired to Davos Platz, which has an elevation above the sea of 5200 feet, being about 1000 feet lower than the Upper Engadine. Here I experienced, although to a somewhat less extent, the same difficulty of breathing, the same apprehension and nervousness. I made many inquiries as to the winter experiences at Davos, and I came away by no means favourably impressed. I next visited the Lower Engadine, about another 1000 feet further down, and it was here only that I began to breathe with comfort and that my distressing sensations left me. Now, it appears that most persons who go to Davos with extensive lung affection and with diminished capacity of respiration, experience there the same acceleration of respiration and circulation, the same breathlessness and nervous sensations. These conditions are due to lessened atmospheric pressure and rarefaction of the air, combined with diminished lung capacity.

The valley of Davos is rather short, and may be described as running east and west, with a certain amount of mountain protection at either end; but it is open to some extent to the easterly and westerly winds. The meteorology of Davos has only as yet been recorded for short periods; but enough is known to determine pretty clearly the general characteristics of the climate. Some valuable data for the months of November 1878 and January 1879 appeared some time back in THE LANCET; those for the latter month, usually the coldest in the year, being particularly interesting and complete. From these it appears that the barometer ranged between 24·35 and 25·15 inches, showing a great diminution in the atmospheric pressure; that the maximum shade temperature showed a range varying between 15·8° and 47·5° Fahrenheit, the temperature being below freezing point on no less than seventeen out of the thirty-one days in the month. The minimum ranged between 7½° below zero and 35·0° above, it being above the freezing point on one occasion only during the month. The solar or radiation thermometer showed a variation ranging between 34·0° and 141·0°, a difference of no less than 107°. The dry and wet bulb thermometers showed a difference of 2·80° only, indicating remarkable dryness of the air, although in one day there was a difference between the two bulbs of no less than 17°. The column, however, of the relative humidity of the air, 100 marking the point of saturation, appears to show that the atmosphere is really less dry than a comparison of the dry and wet bulbs would lead one to suppose. On only eleven days in the month was the humidity less than 50, while on more than that number of days it either approximated, or even reached the point of saturation. Southerly winds alternated with northerly in about equal proportion; there were but five complete days of bright sunshine in the month, nine on which snow fell, fifteen more or less overcast, and one on which there was mist. The observations published for November, 1878, are corroborative in the main of those above given, although that month on the whole was by no means so cold as January. It thus appears that the range of temperature experienced at Davos during the month of January, 1879, was something enormous, it varying from 7·5° below zero up to 141·0°; the radiation thermometer even, as already remarked, showing a difference of 107°. It is difficult to comprehend how such extreme variations of temperature can be otherwise than injurious in the great majority of detected cases of phthisis, which are mostly cases in an advanced stage of the disease.

The valley of Davos, lying east and west, and being tolerably broad, no doubt receives a considerable amount of sunshine; but the days in winter are short; and it appears, by the statistics quoted, that there were only five days of bright sunshine in the month, although the sun shone on other days, more or less obscured by clouds, the passage of each cloud over the sun's disc being attended, of course, with a great and immediate change of temperature.

The journey to Davos is by no means an easy one; that portion of it from Landquart, occupying eight hours, is accomplished as far as Klosters in a diligence, and from thence in a sleigh, which, unless otherwise ordered, will be an open one. Patients are recommended to reach Davos in the beginning of October, in order that they may become in a measure acclimatised before the great fall of snow which usually occurs in the middle of November—when, in fact, the place becomes snowed up and pretty well cut off from the rest of the world—not a green twig, flower, or bird being visible for months. During the winter fresh falls of snow frequently take place, that which has already fallen becoming consolidated, and at times partially melted. Usually, however, no great thaw occurs until near the end of March; but this is not always the case. Sometimes there are considerable thaws, and then the air becomes indescribably chilly and damp, colds are rapidly caught, and many persons are laid up. We all know what a thaw means in England, where the snow seldom has a depth of more than a few inches; how much worse, then, must it be in Davos, where the snow is several feet deep. It is on this account that patients are recommended to leave Davos not later than the beginning of April. But where can they go to at this inclement season? It is far too early to return home. A warm place, even were one readily accessible, but which is not to be found nearer than the south of France or the Riviera, would scarcely be suitable after the Siberian winter of Davos. Indeed, there is reason to believe it will eventually appear that one of the great disadvantages of Davos is, that a winter passed there renders the frame subsequently unfitted for warmer and more temperate climates, and that, quitting its bracing and freezing atmosphere, there is great risk of the speedy loss of whatever increase of strength and health may have been derived from a winter there.

The food at Davos is very fair, suitable for those who have good appetites and are able to take daily exercise, but, as might be supposed, there is a great deficiency of fresh vegetables. Stimulants are freely indulged in, and are sometimes taken to an injurious extent. When once a patient is laid up, is confined to his room, and loses his appetite, his position becomes anything but desirable; the little luxuries and delicacies then so necessary are scarcely obtainable.

Furthermore, but little reliance is placed on medicines, which are seldom administered by the foreign medical men practising there, even in cases which would appear to us to urgently call for them, and there is no English medical man at Davos. It is boasted that the air alone is the curative agent. Let us see how far this view is sustained by the facts. Few invalids who go to Davos spend more on the average in the open air than some four or five hours out of the twenty-four which go to make up the day and night. Taking the average at five hours, nineteen are spent in the hotel. The external air respired, owing to diminished pressure, expands and occupies much more space. Again, when the sun shines, this rarefaction is still further increased, the capacity of the lungs remaining the same, and consequently at each respiration less oxygen is taken into the system than when the air possesses its usual degree of condensation. The patient breathes what may be termed a diluted or thin air; in his rooms at the hotel he also breathes a rarefied air, but now warmed by stoves, and rendered impure by the number of persons congregated together in a small space, all breathing the same air, and also by the fact that the closely-fitting and double doors and windows, rendered necessary to keep out the cold, prevent that motion and renewal of the air which is so essential under such circumstances. If any aid to this air is required, it is sought for not so much in medicines as in hydropathy, which we have heard, in some chest cases, is carried out, with a view to reduce fever, to the extent of what is called the "snow bath." Hydropathic remedies and appliances in the majority of lung diseases, and particularly in phthisis, are as a rule strongly and rightly condemned by English practitioners. I have said that stimulants are sometimes freely indulged in, and it appears that, occasionally at least, large quantities of brandy are ordered with a view to check fever. One gentleman recently informed me that he had taken under orders a pint of brandy daily for five weeks, and, finding that it destroyed his appetite and did not produce the desired result as respects the fever, he refused to continue it, and took on his own responsibility large doses of quinine with much benefit.

That the sharp, keen, cold atmosphere of Davos should brace up the muscular system, increase the appetite, and promote digestion, is nothing more than might have been anticipated from the known effects of cold in other localities; where these results ensue, and they do so chiefly in cases where there is strength and vigour enough to allow of almost

daily exercise being taken, the patient is, doubtless, placed in a very favourable position for gaining strength, and with it health. And in the remarks which I have made I by no means desire to make it appear that Davos is not a suitable winter station for certain classes of invalids; but I wish particularly to show the necessity for the exercise of extreme caution in the selection of cases of lung affection which are allowed to proceed there. The fact that some persons suffering from phthisis go to Davos, gain in weight, and improve in their condition, affords no proof whatever that Davos is the best place to which such cases can be sent. A very large proportion of cases derive benefit, no matter to which of our health resorts they go. I have found the improvement wrought in the condition of many consumptive patients sent to Ventnor, Cannes, or San Remo, to be really marvellous. Turning to the medical reports of the Royal National Hospital for Consumption and Diseases of the Chest, located at Ventnor, I find that of the 474 patients suffering from chest affections treated in that institution during the years 1870–71–72–73, 122 were discharged from the hospital as improved, 161 much improved, 83 very much improved, 28 restored, 34 in much the same condition as when they entered, 22 were worse, and only 24 died. The gain in weight amounted to 2112 lb., and those who lost weight did so only to the extent of 286 lb. Of the 619 cases admitted during 1874 and 1875, 130 left the hospital in improved health, 122 were much improved, 167 very much improved, 41 were restored, 91 remained in much the same condition, 37 became worse, and 31 only died, while the gain in weight amounted to 2117 lb. Of the 888 cases received into the hospital during the years 1876 and 1877, 203 left it in improved health, 166 were much benefited, 236 very much so, 62 were restored, 77 remained in much the same condition, 94 became worse, and 50 died. No records were kept during these two years of the gains and losses in weight. Lastly, of the 501 patients admitted during the year 1878, 106 improved, 78 became much better, 150 very much so, 53 were restored, 36 remained in much the same condition as when they entered, 62 became worse, and only 16 died; 332 of these patients gained 1840 lb. in weight, and 124 patients, excluding those who died, lost 411 lb.

Now these results are very striking, and show the extraordinary benefit which most patients suffering from consumption and other diseases of the chest derive from change of climate, suitable diet, and appropriate medical treatment. They are, indeed, very favourable to Ventnor as a place of residence for persons suffering from affections of the lungs, but they by no means demonstrate that Ventnor is the best of all places to which such cases could be sent, neither does the fact that a certain proportion of the cases sent to Davos derived benefit therefrom, prove that it is the one place above all others for consumptives. Much more accurate and extended statistics than have hitherto been obtained, are required before any such conclusion is warranted.

Woburn-place.

ON CERTAIN POINTS IN THE ETIOLOGY OF HIP-JOINT DISEASE.

BY RICHARD BARWELL, F.R.C.S.,
SURGEON TO CHARING-CROSS HOSPITAL.

HIP-JOINT disease, surgically so-called, must be distinguished from certain diseases of the hip-joint, such, for instance, as arthritis deformans, or the form of suppuration which occasionally follows upon an exanthematous or enteric fever. The distinction is much more easily observed and pointed out at the bedside than made the subject of a definition. The disease with which we now have to do commences without prodroma, or with only slight loss of health in malaise, limping, and certain well-marked postures; it runs on with starting pains, a remarkable reversal of the characteristic position, wasting of the limb, abscess in various parts; and, after death or resection, such changes in the various constituents of the joint as we are in the habit of associating with the strumous diathesis are found. Although this disease frequently attacks those who are well fed and cared-for, yet it is more common among the poorer and less well-fed classes. Above all, this particular form of malady is confined, or almost confined, to children under twelve years of age. It is, of course, well known that strumous joint disease generally is more common in earlier than in later life, yet at no other joint are such affections nearly limited to childhood. I look back on a long and wide experience, yet I do not know of a single case of hip disease proper commencing in adult life. Many relapses have I seen, even between the thirtieth and fortieth year of disease which had commenced in childhood, but not one *originating* after twenty-five, and only one after eighteen years of age. There must, then, be some peculiar cause or causes which render a malady almost unknown to adults so prevalent with children.

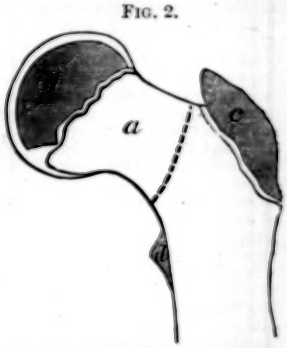
The anatomy of this articulation in early life is somewhat peculiar. The acetabulum is not, as in adults, hollowed out of a single bone, but is divided into three parts by as many lines of cartilage, which, radiating from near the centre of the cavity, like the limbs of a letter Y, give that name to the junction. Along both margins of each line enlargement by growth takes place; therefore, in six parts of the cavity *within the synovial sac* great plastic activity, together with hyperæmia, are continually going on.

The upper extremity of the femur of the newly-born babe is very different in form from the fully-developed bone: the head is very large in proportion to the trochanters and shaft, the neck being quite undeveloped, so that the former seems sessile on the latter portion. Some time during the first year of life a bony nucleus appears in the upper part of the head, and during the fourth year an apophysal centre for the great trochanter. The small trochanter, whose ossification is much later, need not interest us here; but the peculiarities of relationship between the epiphysal head and the rest of the bone are very important. The subjoined cut, representing the section of a bone before union of its various parts has taken place, shows that the epiphysis does

FIG. 1.

Upper end of femur; stillborn child. Head and upper end of shaft disproportionately large, indicating formative plasticity. Neck only marked by a narrow groove, giving attachment to synovial membrane and capsule.

FIG. 2.



Section of upper end of femur; boy aged sixteen. The diaphysis is left light; the additions are in tone. *a*, Shaft, neck, and diaphysal head. *b*, Epiphysal head. *c*, *d*, Large and small trochanters. The dotted line marks the synovial insertion.

not form by any means the whole of the head, but that all the lower and outer portion of this part and all the neck of the bone is derived from the diaphysal centre. Now, if we compare the upper femoral end of a newly-born child (Fig. 1) with that of a boy in his sixteenth year (Fig. 2), if we consider the place where the synovial membrane (represented by dotted lines) is attached, we see at once that the whole growth of the head takes place within the joint cavity; and not only so, but that all the neck—viz., more than an inch in length of a large bone—is formed entirely within the synovial membrane, which, as we see, encloses not merely the epiphysis, but also a large portion of the rapidly growing diaphysis. Let us contrast this condition with other large joints, as the knee. Here both the epiphysal junctions, save the anterior extremity of the femoral one, lie outside the joint; we see at once that hyperæmia, even disease, about these parts, may persist for a long time without affecting the joint itself. At the shoulder the inner portion of the epiphysal junction lies within the synovial sac, but, in the absence of a real neck to the humerus, how weak in comparison to that at the femur is the formative energy. At the hip, both pelvic and femoral growth lie entirely within the joint sac; that

growth is most rapid, and any overaction, any inflammatory or other morbid condition, at this place is at once reflected as a joint affection. To my mind there is no doubt whatever that nearly all, if not all, the cases of infantile hip-joint disease originate in the bone, and more especially about the pelvic or epiphysal junctions; the proof of this position I must, however, for the present postpone.

But it may be said that all this proves only that, given a malady of the bones, hip disease must follow, yet shows no cause for the prevalence of osseous affections. Well, a certain causal connexion may be found in the fact that during the period when hip disease is frequent the child begins to throw its weight on the parts in question, learns to walk, and then becomes exposed to frequent falls and accidents. No doubt a certain number of cases may thus be accounted for; but I confess to a strong opinion that some more potent agency has a larger share in the etiology.

A good many years ago I was struck with the fact that nearly all the boys we admitted for hip disease into Charing-cross Hospital had congenital phimosis. In a short time this coincidence was found to be nearly, if not quite, constant. At last, in the middle of 1873, I determined to note, in a hundred male cases of hip disease occurring in my private practice, or admitted into hospital, the presence or absence of this condition. For the sake of better classification phimosis was divided into three classes:—1st degree, the opening in the prepuce a mere pinhole, so that on retraction no part of the glans, or only a minute portion of the urethral lips, could be seen. 2nd degree, in which a considerable part of, or all but nothing beyond, the urethral orifice could be uncovered. 3rd degree, in which the prepuce, when retracted, uncovered some portion, but only a portion, of the glans. 4th degree, elongated prepuce projecting more than a quarter of an inch beyond the glans, but capable of entire retraction. 5th degree, normal.

Table of 100 cases of Hip Disease in Male Children under ten years of age.

1st degree.	2nd degree.	3rd degree.	Elongation.	Normal.
39 ...	27 ...	17 ...	11 ...	6

The same divided into ages.

Years.	1st degree.	2nd degree.	3rd degree.	Elongation.	Normal.
2 to 4...	3 ...	2 ...	0 ...	1 ...	1
4 to 6...	7 ...	5 ...	2 ...	3 ...	3
6 to 8...	16 ...	11 ...	9 ...	4 ...	1
8 to 10...	13 ...	9 ...	6 ...	3 ...	1

The first line of this table is very significant when it is considered that the cases are not picked or chosen, but represent every hip disease in the male that came under my notice,[1] from the end of 1873 up to the middle of 1878, when my number was complete. It will be observed that of these cases 83 have phimosis, that only 6 have normally formed prepuce, and that from complete, or the first degree of phimosis, to which class more than one-third of the cases belong, the number steadily declines to the normal. I would also point out that these are not fortuitous coincidences, because for two years at least before commencing tabulation this association was remarked. Furthermore, I asked my friend, Mr. Morrant Baker, to inquire for me about the prevalence of hip disease at the Evelina Hospital, which is largely used by Jews. He tells me that few children are there admitted for hip disease, and that most of those so received belong, not to the Jewish, but to the Christian community. I have appended also the second part of the table—that which divides the cases into ages—although I think in certain ways the division is not very reliable; for finding it impossible to ascertain from the accounts given by parents the exact period of commencement, the age at which I saw the child or admitted him into hospital has been recorded. Children of course came under my notice in all stages of the disease; hence the table shows nothing as to the time at which the malady commenced.

The important fact, however, is simply coincidence of phimosis and hip disease—a coincidence which I should never have dreamed of or imagined had it not been forced on my observation. Upon the mode in which the one influences the other I would rather not speculate further than to point out that phimosed children have facile, frequent, and often long-continued priapism; that this condition, unnatural in the infant, must produce after a time a certain irritability or irritation of the lumbar spinal cord; that from this part the various nerves of the pelvis and lower limb are given off; that the influence of spinal irritation on the trophic nerves is well known, and that just at this particular period large trophic changes are in progress about the hip-joint.

Of course, I have not overlooked the fact that hip disease also occurs in female children, though I believe less frequently than in the male.[2] I regret exceedingly that I did not simultaneously tabulate such cases, as I am now engaged in doing; but this I can say with certainty, that in a large proportion of girls afflicted with hip disease will be found vulvitis, even vaginitis with or without discharge, and generally, I believe, produced in the first instance by thread-worms creeping from the rectum to the vagina. In a certain proportion will be found protruding nympha or nymphæ covered by a cuticular surface. Further than this, as my numbers are incomplete, I am disinclined to go. The inference as to treatment of male cases in the earlier stages is obvious.

George-street, Hanover-square.

[1] My colleagues at the hospital had kindly permitted me to make use also of their cases for statistical purposes.

[2] During the time that I was noting 100 male cases I saw only 73 female cases.

A CASE OF

PAROXYSMAL HÆMOGLOBINURIA, WITH REMARKS ON ITS NATURE.

BY STEPHEN MACKENZIE, M.D., F.R.C.P.,
ASSISTANT-PHYSICIAN TO, AND LECTURER ON PATHOLOGY AT, THE LONDON HOSPITAL.

(Concluded from p. 117.)

IT seems to me therefore, that the kidney is the seat of the blood destruction and blood discharge, and the next point to inquire into is the mechanism whereby these processes are brought into action. The phenomena of an attack of hæmoglobinuria are briefly as follow:—On exposure to cold, or in rare cases after depressing mental influences (in nearly all cases change from a warm to a colder temperature is the exciting cause of the attack), the patient turns pale, experiences a sense of chilliness, lassitude, and oppression, accompanied by a rigor of greater or less severity, or a goose-skin condition of the integument (cold stage). This is followed, after a longer or shorter space of time, by flushing of the surface, a sense of burning heat, ending in profuse perspiration (reaction). The first time the patient passes water after such a shivering it is observed to be black. He may continue to pass similar urine for some hours, but usually, or at least often, the water that he passes during or subsequent to the stage of reaction has the colour of health. Albumen is often present in the urine for some hours or even days subsequent to the appearance of blood-colouring matter.

It will be observed that in my patient exposure to cold, which excites the attacks of hæmoglobinuria, also induces attacks of urticaria. I think the urticaria furnishes us with an explanation, or at least strengthens that I am about to express my belief in, of the mechanism of the hæmoglobinuria. In urticaria "first there is a morbidly sensitive skin; irritation is then applied, and is followed by spasm of the muscular fibres of the skin, and also of the capillaries, with subsequent dilatation of these vessels. Then follow hyperæmia or redness, escape of serosity, elevating the central part more than the outside of the lines, the whole constituting what is termed a 'wheal.' *The tissues are passive.*"[1] (Italics in original.) In cases of paroxysmal hæmoglobinuria, during the cold stage of the rigor the cutaneous bloodvessels are in a state of spasm, and the blood, unable to reach the surface, is driven in upon the internal viscera. Whilst this blood fluxion is distributed more or less to all organs, the vascular arrangement of the kidney is such that its effects are peculiarly felt by the latter. The mechanism of renal secretion is so arranged that the renal capillaries are, even in health, subjected to a pressure greater than that of the systemic capillaries; and owing to this and

[1] Skin Diseases, by Tilbury Fox, M.D., 3rd ed., p. 120.

to the lessened pressure of the fluid in the channels of the uriniferous tubules, the water and some other constituents of the blood are squeezed through the walls of the glomerular capillaries into the renal tubes.[2] The pressure of the glomerular capillaries is dependent upon the calibre of the afferent arteries. Whatever enlarges the calibre of the afferent arteries increases the pressure in the glomerular capillaries, and whatever diminishes the calibre of the afferent arteries reduces the pressure in the glomerular capillaries. When the calibre of the afferent arteries is enlarged, either by the blood being forced upon the kidney owing to its being shut out from other vascular areas, as from the skin during a rigor (collateral fluxion), or by paralysis of the vaso-constrictor nerves (inhibition), the blood in the glomeruli and the glomerular capillaries is subjected to greater pressure. In these circumstances, if the increased pressure be moderate, more water and other natural constituents of the urine will be poured out. But if the vascular dilatation is too sudden or too severe, either the vessels subjected to the pressure must give way under the strain, or the blood itself must bear the effect of the pressure. In paroxysmal hæmoglobinuria, either in consequence of the blood being shut out from the skin during the rigor, or owing to an independent paralysis of the vaso-constrictor nerves, the blood is suddenly and with great force driven into the glomeruli. That the capillaries of the latter do not give way under the strain is evidenced by the non-appearance of blood-discs in the urine. We are led to the conclusion, therefore, that the blood in the glomeruli is injuriously compressed, the corpuscles disintegrated, and their colouring matter forced through the intact walls of the glomerular tufts into the uriniferous tubes. Sir William Gull attributes intermittent hæmatinuria to the kidneys losing *some* of their dynamical properties, owing to which they are unable to convert the hæmatin into the normal colouring matter of the urine. "They ought to eliminate the hæmatin in the condition of urine pigment; instead of that, they eliminate the hæmatin itself." On the subsidence of the excessive vascular dilatation the urinary secretion resumes its natural course; but, as the subsidence of the nervous disturbance is rarely as abrupt as its incidence, we find that the black water may continue to be passed for some hours after the onset; and, even after hæmoglobin ceases to appear in the urine, albumen may be present for some hours, or even days. This last circumstance appears to me of great importance as sustaining the view I have adopted, for we know that with increased arterial pressure albumen does appear in the urine. Moreover, it is asserted by Parkes that albumen is found in the urine during the fit in a considerable number of cases of ague, and he states that blood in some quantity, and casts, are seen about as frequently as albumen. I think these facts show that the pressure in the glomeruli is increased, causing albuminuria, in cases of hæmoglobinuria, when the pressure is no longer sufficient to cause the blood destruction, and in other cases when not sufficiently pronounced, or failing the necessary individual peculiarity, to evoke an attack of hæmoglobinuria. After the attack the renal functions are found to be properly performed. The disease may exist for many years without any sign of the kidney suffering. Thus, Van Rossem, who has collected thirty-one cases, shows that it may exist for as long as eleven years, and not seriously affect the health. These facts, I think, show that *the kidney is passive*, and that the disease is a *vaso-motor neurosis*. This view has been advocated by Dr. Pavy,[3] whose words I may quote. Speaking of the paroxysms, he writes:—"There is no regularity in their recurrence. They are brought on by exposure to cold, and exposure to cold only. When the hands or feet get chilled, the patient is seized with shivering, has a general feeling of discomfort, and begins to pass immediately urine more or less dark-coloured from the presence of blood. It may be assumed that there is no organic disease of the kidney, as the urine, except during the attack, is healthy. An alteration in the quality of the blood, or in the state of the bloodvessels, must constitute the immediate precursor of the escape of blood from the kidney. The rapidity with which the effect upon the urine follows the exposure to cold scarcely leaves ground for supposing that an altered condition of the blood could be set up to occasion it. We have only, therefore, an altered condition of the bloodvessels to fall back upon, and physiology teaches us how rapidly and readily impressions may act through the nervous system, and modify the circulation and nutrition of a part." When, as I suppose, the blood-corpuscles are broken up in the glomeruli, the greater part of the dissolved hæmoglobin is forced through the capillaries into the urinary tubes, but some part, a variable one, is carried off by the efferent veins and conveyed into the general circulation, and thus is brought about that constant staining of the tissues met with in the sufferers from this disease, and which gives them the sallow appearance, or faint yellow staining of the skin and conjunctivæ.

It is possible that a period of vascular spasm precedes the vascular dilatation of the kidney, as has been supposed to occur in the skin in urticaria, for Lichtheim asserts that during the cold stage of the attack there is anuria. This would tend to make it appear that the vascular spasm is general, or that the kidney is primarily anæmic before the turgescence takes place. It stands to reason, however, that when the blood is driven out of one part it must find its way into other channels; and from the close correlation between the skin and the kidneys[4] it is probable that if spasm of the renal arterioles takes place it must be very transitory, and that it is during the cold stage, when the cutaneous bloodvessels are empty, that the blood is forced upon the kidney. Van Rossem, as already stated, believes that blood as such is actually poured out by the kidney, and that the corpuscles are dissolved by oxalate of soda (lime?) in the bladder. I think the rapidity with which the hæmoglobin is evacuated, and the brief duration of the attack, preclude the idea of such solution. Oxalate of lime was found in the urine of my patient on one occasion, and in cases recorded by Drs. Pavy,[5] Greenhow,[6] Sir William Gull,[7] and others; but I think its presence, like that of uric acid, is best explained by the imperfect urea transformation which exists during the attack. (See the careful analyses of urine in the case recorded by Dr. Druitt, op. cit.)

It has been thought by many good observers that paroxysmal hæmoglobinuria, or intermittent hæmatinuria, is a manifestation of malaria; but though some of the patients have undoubtedly suffered from malarial poisoning, in others there has been no evidence of it. There are many facts which are opposed to the malarial hypothesis. As Dr. Greenhow has shown, it differs from ague "in not being periodical, and in apparently requiring a fresh exposure to cold or damp to excite each separate paroxysm." I have, since this paper was written, seen a case of paroxysmal hæmoglobinuria at Highgate. The patient was a child who had lived all her life at Highgate, certainly not a malarious situation. How widely it differs from true malarial hæmaturia will be seen by reference to the writings of Dr. Joseph Jones of Louisiana, who has carefully studied the latter disease.[8] Dr. Druitt, who has examined into the literature, states that hæmaturia is a rare manifestation of malaria. It has been shown that a rigor or chill almost invariably precedes the passing of black water, hence one of the reasons for supposing the attacks to be aguish; and it may thus happen that, in persons with a certain nervous constitution, ague may act as the determining cause of an attack, for it is to the rigor, which constitutes one of the symptoms both of ague and of paroxysmal hæmoglobinuria, or to the state of the vaso-motor nervous system which causes it, that the occurrence of hæmoglobin in the urine is due. The undoubted influence of quinine over the disease cannot be strained to prove its malarious nature; it is nearly equally in favour of a nervous origin, for we find other neuroses, as neuralgia &c., yielding to its influence. But it may be asked, If the escape of blood-colouring matter is excited by a chill or rigor, how is it, since rigors are so common, hæmoglobinuria is a very rare disease? To this it must be answered, Over and above the rigor some peculiarity of nervous system must be the essence of the disease. Most persons do not get urticaria from a chill, but some do. Moreover, to strengthen the analogy between hæmoglobinuria and urticaria, it may be remarked that sometimes in urticaria the papules and wheals are associated with hæmorrhage, as in "purpura urticans." It has been thought by some that hæmoglobinuria may be an expression of gout, but the evidence on this point is not very strong.

[2] Küss: Manual of Physiology, by Dr. Amory, p. 464.
[3] THE LANCET, 1866, July 14th, p. 34.

[4] "No fact in the animal economy is oftener or more strikingly brought home to us than the correlation of the skin and the kidneys, so far as their secretions are concerned; and this seems to be maintained by means of the vaso-motor nervous mechanism."—Foster's Textbook of Physiology, 2nd edit., p. 324.
[5] Op. cit.
[6] Trans. Clinical Society, 1868, p. 53.
[7] Guy's Hosp. Rep., 1866, p. 381.
[8] Trans. American Med. Assoc., 1859, and American Practitioner, January, 1873.

My friend and colleague, Dr. Barlow, has suggested to me in conversation that it may have an affinity with hæmophilia, which again is thought by some to be allied to gout. Whether or not such is the case—and it appears to me an interesting point to follow out—the blood destruction and discharge must be brought about by some definite agency, and this, I think, is through (in the way I have described) the influence of the váso-motor nervous system. It has been thought that nephritic or vesical calculus may be the cause of the occasional bloody water, and this possible cause—most obvious to the surgical, though apt to be overlooked by the medical mind—should always be entertained and disposed of. Dr. Sutton, a short time back, related at the Hunterian Society the notes of a case where calculi ultimately resulted upon attacks of characteristic hæmatinuria of some years' duration. When one thinks of the great strain thrown upon the kidneys, and the pouring out of the solid urinary constituents, and the crystalline hæmoglobin, into the urinary tubules, such an occurrence would seem a much less unlikely one than its record would appear to show. But what evidence there is on this point would indicate that, when present, the calculi should be regarded as the consequence, and not the cause, of the attacks of hæmoglobinuria. During the attack of hæmoglobinuria a feeling of aching or pressure is often felt in the loins, but never anything approaching the agony of so-called nephritic colic due to renal calculus. The striking sequence of the attack upon exposure to cold, and the fact of the patient benefiting by a sharp walk or run, strongly oppose the idea of the blood in the urine being due to calculus, as does also the fact that it is blood-colouring matter, and not blood-corpuscles, which is found in the urine.

I think, therefore, the evidence all points to the kidney as the seat of blood destruction and blood discharge. And since the kidneys do not necessarily manifest any signs of failure of their functions after the disease has existed many years, that the disease is suddenly induced by an obvious exciting cause which acts upon the vaso-motor system, and that it is evanescent in its duration, we must regard it, like urticaria, as a paroxysmal neurosis of the vaso-motor nervous system. In what the peculiarity of the nervous system consists, and whether any unusual anatomical condition of the kidney contributes to its production, we are quite ignorant. The disease occurs at all ages, but it largely predominates in males. Thus Van Rossem finds that of thirty cases only one was a female. They were distributed, as regards age, as follows: in the first year of life, 1; from five to ten, 3; from ten to twenty, 4; from twenty to thirty, 7; from thirty to forty, 8; from forty to fifty, 6; and from fifty to sixty, 1.

As a knowledge of the pathology of a disease must always precede a rational therapy, so an appreciation of the mechanism of paroxysmal hæmoglobinuria will best teach us how to treat it. In a disease which practically has no morbid anatomy, we are compelled to resort to hypothesis to explain the phenomena, and that I have put forth, I think, does explain all the phenomena of paroxysmal hæmoglobinuria. Exposure to cold is obviously the exciting cause, and avoidance of this cause will generally suffice to keep in check or cure the disease. In rare cases, where the nervous dyscrasia has a deeper hold, other depressing influences, mental especially, suffice to induce an attack. Practically, however, the disease can usually be kept in abeyance by protecting the surface of the body from becoming chilled. To this end, warm and suitable clothing generally suffice, but in rebellious cases residence in a warm and uniform climate must be resorted to. Quinine, and, in some cases, eucalyptus globulus, but especially the former, *in large doses*, once or twice daily, assist the former measures in warding off attacks. Ten or fifteen grains of quinine may be given (to an adult) in the morning, and the same quantity or half as much in the afternoon or evening.

Finsbury-square.

THE deaths registered in London last week numbered 1208, representing a mortality-rate of 17·4 per 1000 per annum. Scarlet fever was the most fatal of the affections of the zymotic class, 58 deaths being attributed to that disease, 49 to measles, 33 to whooping-cough, 15 to different forms of fever, 6 to small-pox, and 25 to diarrhœa. The cause of death of a boy at St. Stephen's Industrial School, Brook Green, was returned by a coroner's jury as "Poisoned with tobacco, by misadventure."

INJECTION OF AMMONIA INTO THE VEINS AS A MEANS OF RESUSCITATION IN ALCOHOLIC AND NARCOTIC POISONING.

BY ROBERT HAMILTON, F.R.C.S.,
SENIOR SURGEON, ROYAL SOUTHERN HOSPITAL, LIVERPOOL.

THE idea that the ammonia generated in the blood in the process of nutrition is for the purpose of acting as a solvent—that is, for the holding together the other constituents—seems probable from the fact that the rapid escape of ammonia[1] by evaporation from freshly drawn blood, and its dissipation in the atmosphere, proceeds *pari passu* with the coagulation of the blood. It seems to show that they stand in the relation of cause and effect.

The immediate tendency of the blood to coagulate as soon as it is withdrawn from the body—that is, for its component parts to separate—certainly leads to the conclusion that its several constituents are only very lightly held together, even when within the body. That temperature, motion, and the exclusion of air, either separately or in conjunction, are the chief agents in sustaining the fluidity of the blood is very doubtful; for when we see the wide range of temperature, with the sometimes sudden alternations to which the blood is subjected, and when, again, we find it can also more than double its speed without influencing its consistence, we can hardly think that these two—motion and temperature—are the controlling powers sustaining its fluidity.

Then, as to the exclusion of air, that cannot of itself be the cause, as the following experiment shows. The jugular vein of a dog was tied, and a ligature passed round it in two places. The blood enclosed between the two ligatures was found in less than an hour to have undergone decomposing changes, for, on a slit being made in the vein, an escape of air and partly coagulated blood followed.

To what extent the impairment of this essential condition for carrying on of life—namely, the perfect fluidity of the blood,—occurs, and under what circumstances, have not been made the subject of investigation; but that there are some forms of dying whose *modus operandi* is through a gradual thickening of the blood, producing a slow and yet slower circulation until complete stoppage occurs, is probable, although an examination of the bloodvessels after death does not reveal it. It is no sufficient answer to this supposition to say we ought to find them choked and full of clotted blood. Arguing from the fact that two minutes suffice for the complete coagulation of freshly drawn blood from a living subject, and that the subsequent steps in the process of disintegration of that blood are equally rapid, we ought rather to conclude that the condition of the blood in the veins and capillaries of a person who has been dead but an hour is probably very considerably altered from what it was at the moment of death, and that the arteries being empty, and viscid blood being found in the veins, are no evidences of what was the actual condition of the circulating fluid when the heart ceased to pulsate and the lungs to respire.

In the beginning of 1878 I was making some experiments with fresh animal blood, and repeated many of those of Dr. Richardson's. The power of ammonia to suspend coagulation was fully confirmed in these experiments. It suggested the thought that the elimination of latent ammonia, by its ready volatility, was the first step in the process of disintegration of the blood. But it was not until the following case occurred that the further thought arose that possibly the action of some poisons when taken into the system was that of stiffening or thickening the blood, if such a term might be applied to a diminished fluidity, the result of an arrested vital force leading to an arrested supply of an ingredient necessary to the maintenance of fluidity. Might not that ingredient be ammonia?

In apoplexy and in fractures of the skull with effusion of blood, where it was formerly thought that the clot of blood was by its pressure alone the cause of death, it is more probable that a progressive clotting of the blood in all the

[1] See Dr. Richardson on Coagulation of the Blood (p. 283).

vessels in the neighbourhood sets in, and the circulation of the blood becomes arrested from this cause over an ever-widening area, until death ensues. The engorged state of all the bloodvessels of the brain found after death favours this view. In such cases death has occurred too soon for the further disintegration of the blood and the escape of its serum, but there are numerous other diseases where the arrest of the circulation or an impediment to it leads to a separation of the fibrin and serum and the infiltration of the latter into the tissues or into cavities. Serous apoplexy, ascites, and anasarca, are familiar instances.

The property of holding together in uniform admixture the constituents of the blood must be lodged in certain elements which are themselves the product of nutrition. This being so, we may go further, and assert that there occur certain conditions of the blood as the result of abnormal nutrition or of blood-poisoning where these necessary elements are deficient, or at least not present in sufficient quantity to hold intermixed the other constituents. Is this what happens in alcoholic and narcotic poisoning? Are nitrogen and hydrogen, combined in the form of ammonia, the elements wanting? If they are, it affords an explanation of the good effect of the introduction of the latter directly into the blood in the case now to be related.

S. C——, aged fifty-two, living in a neighbouring street. I was called to her on March 6th, 1878, at 7.30 A.M. I found her lying on a sofa insensible, having all the appearance of stupor from drink. Her history was that of a confirmed drunkard. Her face had a very bloated appearance. She had risen an hour or two before, and gone to an adjoining public-house, and been supplied with drink—rum or brandy,—had come home and laid down on the sofa, and the children after a time being unable to rouse her, sent for me. There were contusions on various parts of the head and face, which gave rise to a suspicion of ill-usage as well. By shaking and shouting to her she would partly open her eyes. Mustard plasters were applied to neck and calves, and attempts made to get her to swallow a little coffee, but without success.

I then had her removed to the hospital, to which she was conveyed perfectly insensible in a cab. Here galvanism and the stomach-pump were freely used, without rousing her in the slightest. She was then removed to bed in a private ward.

At 11 o'clock I saw her again. She was quite comatose, pupils contracted, pulse feeble and flickering, and skin moist and perspiring. All attempts at rousing her failed.

At 1 P.M. I saw her again. The pulse had now become so feeble as to be scarcely perceptible; her lips and tongue were livid and cold; there was a frothy secretion of mucus from the mouth, and peculiar changes of colour passed over her countenance, which seemed to indicate the nearness of the end. I left her with the impression that in a few minutes pulse and breath would stop. Going down stairs with Mr. Gwatkin, the senior house-surgeon, discussing the case, he threw out the suggestion to try the injection of a little ammonia into one of the veins, a proposal to which I gladly acceded, and having obtained some strong solution of ammonia from the dispensary, I returned to the ward and injected with a hypodermic syringe ten drops into the medio-cephalic vein of the right arm. The effect was striking. In a few moments she moved slightly—an uneasy, restless motion, and soon after, on being shaken and spoken to, partly opened her eyes and turned her head. The most marked change was in the pulse and mouth. The former, which was not to be felt just before the operation, could now be detected, and after a time counted, whilst the mucous membrane of the mouth and tongue became almost immediately of a natural colour.

She slowly recovered consciousness. In the evening, when I saw her again, she had so far rallied as to be able to swallow. She complained much of her arm. The skin over the injected vein subsequently sloughed. Her recovery was slow, due to the intemperate life she had led, and to the ill-usage of a brutal husband, every part of her body being covered with bruises and contusions.

I have delayed the publication of the above remarks for several months with the hope of being able to give further illustration of the effects of ammonia injection. Quite recently a woman was brought into the hospital poisoned by drinking carbolic acid. The case was apparently hopeless, when the house-surgeon injected solution of ammonia into the veins of her arm, and the woman recovered.

Liverpool.

THE TREATMENT OF EXCITEMENT BY SEDATIVES OR OTHERWISE.

BY J. A. CAMPBELL, M.D., F.R.S. EDIN.,
MEDICAL SUPERINTENDENT OF GARLAND'S ASYLUM, CARLISLE.

IN submitting some observations on this subject I feel that I need not say anything in apology for treating of what is mostly seen in special practice, because physicians and surgeons in general practice see many cases of insanity; and in nearly all these cases excitement, with its frequent accompaniments, noisiness, destructiveness, and dangerousness, is the prominent symptom. In fact, if it were possible to eliminate this feature of the case without immediate danger or injury, many cases would never be sent to asylums. This, in substance, has been remarked by several writers on the subject. The question as to the best, quickest, and safest mode of getting quit of excitement in insane patients, without lessening or retarding their chance of recovery, is, I am sure, an object at present being carefully studied and investigated by the majority of working asylum physicians; and I regret that, owing to the distance between asylums, the infrequency of the Psychological Society's meetings, and the natural reluctance that many men have to express their opinions on paper unless they think they have some real discovery to announce, we are frequently unable to hear as much as we would desire as to the modes of treatment and the results of other men's practice.

In 1869 the Scotch Lunacy Board published in their Blue-book answers, in regard to queries issued by them as to treatment, which they had received from the asylum superintendents in Scotland. I think it would be useful if a somewhat similar return could be got even from a select number of asylums in the three countries, with the results from each asylum for a given period.

Some may, and with justice, find fault with me for taking merely a symptom of a disease into consideration; but when the cause is unknown in medicine generally, one has frequently to treat the most prominent feature; or even when the cause is known, until general treatment can have time to act, one frequently has to alleviate, say, pain, the prominent feature of a case. Many cases of insanity arise from functional disturbance, the brain complication being due to this cause. In very many cases of insanity we are yet groping in the dark: we have not yet discovered their causes or the means of curing them; but, in practice, at least alleviation of the worst features is possible, and to be attempted.

The basis of my paper is formed from the results of five years' practice at Garlands Asylum. I have taken the five years ending 1878, as I was not in charge of the asylum during the whole of 1873. I shall also refer to the chronic cases liable to attacks of excitement which came under treatment during this period. In order to get the necessary material I have gone carefully over each case and also the prescription-book, and tabulated the results with respect to the cases admitted during these five years. In this asylum there have always been many excited patients, especially among the old cases in the female division. I consider that, if not for others, it is useful for oneself to look back on one's practice, find which mode of treatment (if any) is successful, or most successful, and in the future utilise the knowledge.

In the treatment of insanity, like any other branch of medicine or surgery, few cases in all points resemble the written type. Individualism insists on its characters being present even in disease, and each case must necessarily be treated individually. Mass treatment may be good for the acquirement of scientific knowledge, but I fear will never be the best for individuals. As an assistant-physician, I had exceptionally good opportunities for becoming well acquainted with the action of a great number of the sedative medicines used in the treatment of nervous affections. I witnessed numerous systematically carried-out experiments as to the effects of these, and I recorded some observations which I made myself as to the relative efficacy of certain drugs on maniacal excitement and insomnia.[1] Certain

[1] Relative Efficacy of Tincture of Hyoscyamus, Bromide of Potassium, and Chloral, in single doses, on Maniacal Excitement. (Journal of Mental Science, June, 1872.)

general conclusions forced themselves on my mind from this experience, and probably these conclusions have had the result of tinging my practice to a considerable extent. I may mention the chief of them.

1st. That in the treatment of excitement, if sleep at night could be produced the patient did better than when kept under the influence of sedatives during the day.

2nd. That though chloral was a most efficacious sleep-producer when given at night, yet, as a sedative employed in frequent or repeated doses, it was dangerous from its depressant effect on the heart.

3rd. That in the excitement of general paralysis it was not good treatment to give sedatives that tended in their action to diminish the already impaired powers of locomotion and deglutition.

In dealing with the patients that came under treatment during these five years, I find that 576 were admitted. Of this number, 276 exhibited excitement as the most prominent feature of their case; in 28 of these cases sedatives were given during the day for a period of a week or longer; of these 28, 5 have recovered up to date. Sleep-producers were given at bedtime to 101 for periods varying from three nights to a fortnight, in a very few cases longer; 70 of these recovered. While stating the general results, I may mention that I have noticed in some asylum reports that the recovery rate in asylums is supposed to have been influenced by the capitation-grant of 4s. per week (which became law in 1874), by its causing an influx of non-recoverable cases formerly treated outside; it probably has sent a few old cases into Garlands; but with the exception of this grant, I think the influences which tend to insanity and cases being sent to this asylum have varied so little that I may, without its appearing the least invidious, compare the general results in the five years ending 1878, and those in the five years ending 1872. I find in the period ending 1872, 572 admissions, of whom 15·7 per cent. were epileptic, imbecile, or general paralytic; the average yearly recovery-rate was 44 per cent. on the admissions. In the five years ending 1878, 576 patients were admitted, of whom 13·9 per cent. were epileptic, imbecile, or general paralytic, and the average yearly recovery-rate was 48 per cent., calculated on the admissions.

In the 28 cases in which I used continuous sedative treatment, I did so on account of the persistent excitement, to render the patients more manageable, as they were so difficult to deal with, and I find that I have been very limited in the drugs I used; this remark both refers to the 28 cases treated by sedatives, the chronic cases which I am about to allude to, and the cases I have treated by sleep-producers. As a sedative given continuously, I have principally used bromide of potassium in combination with tincture of cannabis indica, or with tincture of hyoscyamus, compound tincture of valerian, and occasionally tincture of opium. Alone, bromide of potassium is valueless in the treatment of acute excitement; its immediate action is too weak, in time it produces bromidism, but I think it acts like a drag in combination, keeping up a sedative effect. In the 101 cases in which I gave a sleep-producer, I had a note made of when the patient became quiet and slept, as far as possible in each case, and recorded it. In these cases I almost entirely used chloral, and am satisfied with its certainty of action and harmlessness when given for short periods. I gave it in doses of from twenty to thirty-five grains (seldom exceeding the latter) in a glass of sherry, administering the medicine after the patient had been in bed an hour without sleeping. I simply gave it to cause sleep. If a patient falls asleep, he will in nearly every case go on sleeping. I did not wish it to produce a long-lasting drugged sleep. I am quite sure that when first introduced chloral was given in too large doses too frequently and for too long periods. I now never use it for any great length of time. Much care should be taken to ensure quiet surroundings at night for recent acute cases. Frequently new excitable cases cannot sleep in an associated dormitory, but if put in a room by themselves they may. With the chronic patients I find I gave a sleep-producer in all to thirty-three, for different and repeated periods, during the term of years I am referring to, and in many instances the medicine was given more for the sake of others who might be disturbed than for the sake of the recipient. I find that I need not now give so many draughts to cause sleep; the chronic patients sleep better. I used sedatives continuously during the day in the case of twenty-six chronic patients during these five years, to some of them for several periods of each year. In many cases I missed an excited attack and observed and recorded the course of the excitement as to its duration and intensity.

For several years I have been attempting to arrive at some conclusion as to the value of sedative treatment; and as to its real effects, if any, other than the merely quieting for the short time its action lasted after each dose, I still find difficulty in the matter. In recent cases labouring under acute excitement, it is impossible to predicate with anything like certainty whether the attack will be of long or short duration; there is nothing that I have noticed in any case to enable one to do so, though the age of the patient and the cause and variety of insanity may allow one at times to form a tolerable prognosis. I reported in 1875 three cases of short attacks of insanity, in which the excitement was very intense, but short-lived; and since then I have seen several similar cases, but nothing that I could notice in such or other cases of excitement would enable me to form a reliable prognosis as to the duration of the attack of excitement. This is what makes it so difficult to estimate with accuracy the value of medicinal or other treatment in excitement. In my practice during the last five years, I have noticed cases where periodic excitement came on usually at tolerably regular intervals, and ran a given course as to duration and intensity, at times vary much. In several cases that I especially observed, when treated during an attack both with and without sedatives, I noticed that, when treated by continued sedatives, they remained longer in a stupid or mentally clouded state after the excitement passed off than when sedatives were not given.

(To be concluded.)

ACCIDENTAL HÆMORRHAGE; TRANSFUSION; RECOVERY.

By G. G. STOPFORD TAYLOR, L.K.Q.C.P., M.R.C.S.E.

ON Thursday, the 13th June, 1878, at 2.30 P.M., I was called to see Mrs. G——, who was supposed to be sinking during a protracted labour. On arriving I found her almost bloodless; pulse nearly imperceptible; extremities cold. Bedding, mattresses, and floor saturated with blood. Stimulants were given at once. On examining per vaginam the os was found to be about the size of half-a-crown; membranes protruding, and blood trickling from the uterus. On rupturing the membranes a great quantity of liquor amnii escaped. A binder was tightly applied, and I directed my efforts to rallying the patient. As uterine action had ceased for some time, and the fœtus was most likely dead, no efforts were made to deliver. On making inquiries I found that she was in her ninth month, and had been washing the day before. Hearing a noise in the street she became alarmed about the safety of her child, who was playing outside the house, and whom she feared might be run over. She felt a gush of blood per vaginam and then fainted. She was removed to bed, and an old woman, who was practising as a midwife in the neighbourhood, was called about 7 P.M., who remained all night, and endeavoured to conceal from the friends that the patient was bleeding. She left her about 11 A.M., assuring her that all was right, and that she need not alarm herself. Mrs. G—— getting worse, I was sent for, and found her as described.

Recognising the fact that transfusion was the only means of saving her, I left my assistant in charge of the patient and applied to Mr. D. Harrison, resident medical officer of the Royal Infirmary, who kindly came at once to my assistance with Roussel's apparatus. Dr. J. W. Callon, who was passing, also came in and joined us in consultation, and we agreed that transfusion should be performed without further delay. The patient's sister, a strongly-built young Irishwoman, volunteered the blood. About ten ounces was injected. Some considerable difficulty was experienced in finding a vein at the bend of the elbow of the recipient owing to an abnormality. There was no distress evinced by the patient. The apparatus worked splendidly. I can't say that the patient seemed to improve as we had hoped she would after the transfusion. Previous operators have experienced great satisfaction at the result of their labours; unfortunately, it was not so in our case. We left at 4.30, conscious of having done our duty, but entertaining no

hopes of her recovery. Directions were given to administer as much nourishment as could be taken, which *was very little*. At 8 P.M. she was wandering, vomiting, and apparently sinking. As a last resource I bandaged her legs and arms from the extremities to the body.

June 14th.—At 5 A.M. I was called by the husband, who said, "his wife was much better after the bandaging, that the sickness continued all night, and that she had pains in her belly." I went at once to her, and found labour progressing very slowly; the os dilated, head presenting; skin warm, pulse 140. She complained of intense headache. About 9 A.M., the head having descended on to the perineum, and the patient getting exhausted, I applied the forceps and delivered; my assistant, Mr. Swindells, keeping up pressure on the uterus externally. The placenta was immediately expelled, and after it came a large organised clot about twice the size. No hæmorrhage; discharge only faintly coloured serum. Uterus firmly contracted. Patient nearly died. Administered stimulants as before. Child was dead, of course. Patient continued in a prostrate condition all day; pulse 160; vomiting frequent. Injection of brandy, one ounce; beef-tea, four ounces, retained. Passed urine, about six ounces. Ice, milk, and soda, *ad libitum*.

15th.—9 A.M. Vomiting ceased. Arm slightly swollen over incised vein and painful. Poultice ordered. Bowels relieved with a castor oil and gruel injection. Valentine's meat-juice supplied.—2 P.M.: Has taken two quarts of milk. Stopped stimulants, as they made her head ache. Pulse 140; temperature 100°.

16th.—Patient about the same. Pulse 142; temperature 101°.

17th.—Improving. Incision beginning to suppurate. Pulse 144; temperature 101°. Bowels moved twice.

19th.—Not so well. Complains of pain in abdomen, owing to drinking large quantity of iced water. Tincture of opium, half a drachm, stopped the pains. Heart thumping violently; so much so that patient could not sleep. Resolved to try tincture of digitalis, ten minims, every four hours.

20th.—I found on my visit at 8 A.M. that she had taken two drachms of digitalis in twelve hours, and on my inquiring why she had not taken her medicine according to directions, she said her heart beat so violently during the night that she could not sleep, and the mixture quieted it. Dozed for a few minutes at a time. She expressed herself as better. Pulse 140. Swelling nearly all gone in arm; wound looking well, but pale. Passes a great quantity of water. To have fifteen minims of tincture of digitalis every second hour. Temperature 102°.

22nd.—Pulse 132; temperature 100·4°. Rather better. Has taken some fish and a glass of beer. Bowels moved naturally. To have half a drachm of tincture of opium at bedtime to procure more sleep.

23rd.—Slept six hours. Feels much better. Palpitation and pulsation in neck much less. Has taken two glasses of port wine. Headache gone.

24th.—Passed a good night. Pulse 120; temperature 100·2°.

26th.—Pulse 110; temperature 101°. Digitalis suspended.

27th.—Pulse 120; temperature 102°. Complains of palpitation again. Ten minims of tincture of digitalis every four hours recommenced.

July 1st.—Pulse 100; temperature 101°. Tincture of digitalis suspended.

8th.—Had a rigor, which lasted a quarter of an hour. Pulse 120; temperature 103°. To have chinchona mixture with ten minims of tincture of iron every four hours.

12th.—Better. Pulse 104; temperature 99·2°.

14th.—Had another rigor, which lasted about ten minutes. Pulse 120; temperature 101·6°. Induration taking place about the incision. Poultices ordered.

15th.—Matter forming, which came through the wound on the 16th.

From this date the patient made an uninterrupted recovery, and was sent to the New Brighton Convalescent Home for three weeks.

Liverpool.

THE Wycombe Rural Sanitary Authority recently decided to reduce the salaries of the two medical officers of health from £50 to £25 per annum, which the Local Government Board refused to sanction; whereupon the authority have decided to offer £35 per annum each.

NOTES OF A

CASE RESEMBLING GENERAL PARESIS OF THE INSANE, FOLLOWING DIRECT SOLAR INFLUENCE, WITH HEREDITARY TAINT.

BY THOMAS B. CHRISTIE, M.D., F.R.C.P.

THE interest that is excited at the present time among psychological observers as to the localisation of disease in certain centres of the brain, and all that bears on this important subject, leads me to lay before the profession the following interesting case—interesting in a threefold aspect. 1st. Its close resemblance to the case of a brother who died some few years back, and the same facts as to the brain-mischief being observed at the autopsy. 2nd. As a sequel to direct solar influence. 3rd. Its close resemblance to general paresis of the insane.

J. M——, aged forty-three, a widower, surgeon-major in the Indian army, was much affected at the loss of his wife, and while at Pulneys, Madras, in the year 1868, had coup-de-soleil from direct exposure, followed by headache on the left side, difficulty of articulation, and other signs of cerebral disturbance. This was followed by singing noise in the left ear and mal-administration of vision of the left eye from dilatation of the pupil followed by great contraction. The memory became defective of recent events, and an eccentricity of conduct and manner became evident. Exaltation of ideas, great excitement, and a loss of control, were followed by excess of depression. He was placed under appropriate treatment, but the symptoms of violence and aberration increasing, as evidenced in striking those about, and his wish to purchase property on a large scale, he was sent home, and came under my care at the Royal India Asylum on the 25th of August, 1870, suffering apparently from general paresis. His ideas were exalted and bombastic; facies unhappy and perplexed; tongue tremulous and quickly receding; pulse varying from 76 to 93; temperature also from 96·8° to 99·6°; gait unsteady and tripping. These symptoms continued till about August, 1872, when there was a great improvement altogether; he became more rational and his walk more steady, so that he was enabled to leave the asylum, and resided for the following two years in Scotland.

I saw him occasionally during this time; he lived temperately, and, as far as I could learn, had not shown any signs of venereal excess. He took interest in various things, and played golf, thus, of course, taking a large amount of exercise. On the 5th of November, 1874, he was readmitted. At this time he is noted as suffering from the second stage of general paresis; very indistinct in speech, and labouring under extravagant and exalted delusions that he is to play a great part in India, that he is very rich, &c. His pulse was small and quick, pupils strongly contracted, and temperature normal. Was treated with extract of physostigma, ¼ gr. three times daily.

The symptoms gradually increased in intensity, and the paralysis became more marked, till the beginning of December, 1878, when he had to keep his bed. From this time sthenic contraction of the lower extremities set in, and the limbs became firmly flexed towards the chin. He became rapidly worse, and died on Jan. 27th, 1879, from exhaustion. He took food (beef-tea, eggs, milk, and brandy) to within two or three hours of his death.

Post-mortem examination as regards the head only was made about sixteen hours after death, and the following observations made:—Rigor mortis persistent. Body much emaciated. Calvaria strongly adherent; the plates dense, and diploe obliterated. Membranes very vascular, thickened, and adherent to the surface of the brain along the median fissure; this was found, on separation, to be caused by three or four bony plates of the size of a sixpence, with small spiculæ pressing into the surface of the brain on the left side. The brain was smaller than usual, and weighed only forty-four ounces. The grey matter was deficient, and the convolutions flattened, and apparently not so numerous. Nothing unusual appeared in the substance of the brain beyond very slight softening in the right thalamus opticus.

I think, from the short notes of the above case, as I said before, great interest occurs from the close resemblance at

the autopsy of the facts observed in the brother's case (plates of bone being there found as large as a shilling). The brother had never been in India, was not the subject of coup-de-soleil, and yet the disease ran somewhat the same course, but was of shorter duration.

It is not often we are enabled to follow out so closely the result of coup-de-soleil. In a small *brochure* by Sir J. Fayrer, he remarks: "The sequelæ of sunstroke are frequently from such causes most distressing, and render the patient a source of anxiety and suffering to himself and his friends." This and many other cases that are constantly coming under my observation tend to prove the correctness of the above; but this case more particularly I am enabled to lay before the profession as a true type of the injuries resulting from direct solar influence; for here we fortunately have a history that keeps it free from the usual complications. The patient was a particularly sober, steady man; thus showing the sequel as free from the various excesses laid to the charge of causing madness. A man of fine physique struck down by the direct rays of the sun, and followed by insanity and death. I am aware venereal excess may still be to blame, but it must be remembered that his wife was dead, and he was well known to be a highly moral man and not to mix in the society of those who would lead him into this.

Dr. Ferrier has lately published some interesting remarks bearing on the localisation of various functions in the brain, laying it down that the speech centres are situated anterior to the fissure of Sylvius at the junction of the third frontal with the ascending parietal convolution; and at the same time, in his lectures, I find the following as bearing on the paralysis of the lower extremities existing in this case: "Clinical evidence in favour of a distinct centre or centres for the leg, clearly differentiated from those of the arm, is not as yet very extensive. We have many cases on record in which the leg and arm have been paralysed together—brachio-crural monoplegia—an association easily accounted for by the close relation of the leg and arm centres to each other. Still there are some cases in which the leg only has been paralysed." "A few cases are on record of paralysis occurring in one or both legs from injury to the vertex in the parietal region."

In this case the plates existed along the median sinus over the left cerebrum, and were found to correspond with the portion of brain forming the ascending frontal and ascending parietal convolutions. Coinciding, therefore, with the conclusions drawn by Dr. Ferrier, we here find speech becoming gradually lost from pressure on this part, and also paralysis of the lower extremities, and, what perhaps is more remarkable, in exactly the same way as we find in cases of general paresis. So closely did the case throughout resemble the paralysis of the insane, that no question of a correct diagnosis ever arose, and the interval of two years was looked upon as an arrestment of disease.

From any single case it is extremely hazardous to form any conclusion; but surely, supported as we are by other cases, it tends to strengthen the opinion expressed so strongly by Dr. Ferrier. Here is a case resembling general paresis of the insane, and at the necropsy the evidence of that disease is wanting, but a disease, so far as we can judge, presenting the same symptoms and bringing about a similar end by attacking the same organ in another way. I feel justified, therefore, in laying these facts before the profession as additional evidence of the right conclusion and important deductions drawn by Dr. Ferrier in his Gulstonian lectures before the Royal College of Physicians last year.

Royal India Asylum, Ealing, W.

CORK-STREET FEVER HOSPITAL, DUBLIN.—During the year ending March 31st last, 2151 patients were admitted, which, with 135 in hospital at the commencement of the year, made a total of 2286, of whom 1764 were discharged cured or relieved, and 447 died, leaving 75 remaining in hospital on the 31st March, 1879. The deaths were equal to 20·78 per cent., against 9·49 in the preceding year, a high mortality, due to the epidemic of small-pox, 357 of the 447 deaths being caused by this disease. The number of admissions was far in excess of the previous years owing to the small-pox epidemic, and included 142 cases of typhus, 60 of enteric fever, 173 of simple fever, 1509 of small-pox, 71 of scarlatina, 35 of measles, 16 of pneumonia, and 4 of erysipelas.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

ST. THOMAS'S HOSPITAL.

TWO CASES OF STRANGULATED FEMORAL HERNIA OCCURRING IN MEN; OPERATION; SAC OPENED; DRY DRESSINGS; RAPID RECOVERY.

(Under the care of Mr. FRANCIS MASON.)

FOR the notes of these cases we are indebted to Mr. S. F. Harvey, dresser.

CASE 1.—J. R——, aged forty-nine, was admitted on April 25th, 1879, with strangulated femoral hernia. He stated that he had had a swelling in the "right thigh" for ten years, but did not know its true nature. He had never worn a truss, and, except that occasionally he had obstinate constipation, there was no further discomfort. Three days previous to his admission the bowels were relieved, and he was as well as usual; but next day he had a severe attack of vomiting, which continued until he sought advice at the hospital.

On admission, there was a tense painful swelling, about the size of a goose's egg, in the right femoral region, unaccompanied with impulse on coughing. There was considerable tympanites and abdominal tenderness. The pulse was feeble and rapid and the tongue very dry; but there was no special distress of countenance. At the usual hospital visit, about two hours after the patient's admission, Mr. Mason examined him, and determined on operating, with the view of relieving the strangulation.

The patient was therefore placed under the influence of ether, and a vertical incision was made over the neck of the sac. The coverings were dissected off the sac, and after some constricting fibres were divided, an attempt was made to return the bowel. As this proved unsuccessful, the sac was carefully opened. The contents consisted of a large piece of omentum and a small portion of intestine, which was of a very dark chocolate hue, although it had not lost its lustre. The hernia proved, as was expected, to be femoral, and Gimbernat's ligament was divided in a direction upwards and inwards. The bowel was readily returned, and a portion of the omentum the size of a walnut was cut off with Paquelin's actual cautery. Four silk sutures were used to bring the margins of the skin wound together, and a pad of dry lint and a bandage were applied. On the following day (April 26th) the abdominal pain had almost ceased, and on the 28th (three days after the operation) the bowels acted naturally. The lint was removed for the first time, and as there was no suppuration, more dry lint and a bandage were applied.

On May 2nd the dressings were taken off for the second time (i.e., one week after the operation), when the wound was found perfectly healed without a trace of suppuration. The stitches were then removed.

On May 5th the patient was discharged cured.

CASE 2.—J. T——, aged sixty-two, a clerk, was admitted on June 20th, 1879. He had had a rupture for nine years, and had never worn a truss. He stated that he was fairly well until the day previous to admission. The bowels acted then at 11 A.M., and about an hour after he noticed that "the lump" in the right groin had perceptibly increased. In the course of the evening it became extremely painful, and the man suffered from persistent vomiting up to the time of admission.

On examination the patient was almost pulseless, and appeared to be in a very critical condition. There were a firm painful swelling in the right femoral region, much tympanitic distension of abdomen, considerable nausea, and occasional attacks of vomiting. The vomited matters, however, were not markedly stercoraceous. At 5.30 P.M. the patient was placed under the influence of ether, and the operation conducted almost in the same manner as in the

last case. The sac was opened, and contained a small portion of omentum, with a large piece of very congested bowel. Gimbernat's ligament was divided in a direction upwards and inwards, and the bowel and the omentum were gently returned just within the abdominal cavity. Four stitches of silk were used to bring the edges of the wound together, and a pad of dry lint and a spica bandage were applied. At 9 P.M. the temperature was 99° F. Next day he complained of nausea, and had two or three slight attacks of retching, but no decided vomiting. Bowels acted twice. Temperature 98·2°; pulse 56.

On June 22nd, he was very thirsty, and was ordered milk with soda-water. As there was some pain in the abdomen, equal parts of the extract of belladonna and glycerine were applied on lint to the part. Pulse 60; temperature 98·2°. (This was the highest temperature throughout, except on the evening after the operation.)

On June 23rd he complained of feeling "low and sinking." He asked for a glass of champagne, which he relished, but he thought it caused a "burning at the stomach." This stimulant was therefore discontinued.

Next day he took a little beef-tea, and felt altogether better. The lint was lifted up, and as primary union appeared to have taken place, it was replaced, the stitches being allowed to remain.

On the 27th, the patient, though feeble, was perfectly well. The stitches were removed (i.e., one week after the operation). The wound had healed, but there was one drop of pus in the track of the upper silk suture.

On the 29th the wound itself was quite healed, but there was a very slight excoriation of skin in the neighbouring parts, due probably to pressure of the bandage. To be dusted with powdered oxide of zinc. Two days later the man was quite well, and was ordered a truss.

Remarks.—In making some clinical observations on these cases, Mr. Mason remarked that they were examples in which operative interference was imperative, as both patients were in a most critical condition. He thought that femoral hernia was more common in men than was generally supposed. He advised operating early in cases of strangulated hernia, especially in the femoral kind, and believed that much damage was done by prolonged attempts at taxis. Further, with regard to the operation itself, it was one that required the constricting parts, whether the sac were opened or not, to be sufficiently divided to allow of the ready return of the bowel without further bruising it. In neither case was the antiseptic spray employed. Mr. Mason believed that the danger of opening the peritoneal cavity was overrated, and remarked that if, after the sac were opened, peritonitis supervened, it was unfair always to lay the blame to the operator, the truth being in many cases the peritoneum was irreparably damaged long before the performance of the operation. In both these examples the sac was opened, and in the first case a large piece of omentum was removed, yet the wound healed by first intention. The result of the operation in the second case was almost as satisfactory, so far as primary union was concerned, for the only pus found was in the track of one of the sutures. Possibly this slight suppuration might have been obviated had the stitches been removed somewhat earlier. Lastly, it was worthy of note that there was scarcely any constitutional disturbance of importance in either case from first to last.

QUEEN'S HOSPITAL, BIRMINGHAM.

REMARKABLE RECOVERY AFTER COMPOUND FRACTURE OF FEMUR, BOTH JAWS AND RADIUS, WITH POSSIBLE FRACTURE OF THE BASE OF THE SKULL AND INJURY TO THE SPINE.

(Under the care of Mr. WEST.)

FOR the following notes we are indebted to Mr. Harbord, surgical dresser.

Zachariah A——, aged forty, a bricklayer, was admitted on Feb. 17th, 1879. A short time before admission he had fallen from a three-storey building, a distance of forty-five feet, on to some rough bricks. He was conscious on admission, but there was bleeding from the nose, mouth, and ears. The upper and lower jaws were severely comminuted, several teeth with the alveolar border coming away. There was a compound fracture of the left femur at its middle third. The wound was on the outer surface of the thigh, about an inch in length, at the junction of the middle with the upper third, and more than an inch of bone protruded from it. There was also a Colles' fracture of the left forearm. He was put to bed, and brandy was freely administered, with local warmth to body. He looked as if dying, and little was done for him in the way of local appliances, as he was thought to be moribund.

Feb. 18th.—He seemed somewhat more vigorous. The thigh was put up antiseptically, and a Scotch sheet and Liston's splint were applied, an extension apparatus being also employed, and the foot of the bed elevated. The forearm was put up in straight splints; the jaws were fixed with a four-tailed bandage. Discharge of fluid from ears and from nose continued during the day. Pulse 120; temperature 101·8°.

March 7th.—Limb dressed twice weekly. The wound soon became superficial. To-day the urine was found to be trickling away, and the bladder to be distended. Temperature 103°; pulse 130. Catheterisation was employed, and forty ounces of highly alkaline urine, with ropy mucus, drawn off the bladder. To be syringed daily with quinine (three grains in an ounce of water). Temperature 104°; pulse 130. Catheter to be used twice a day.

10th.—Bladder symptons subsided. Catheterisation discontinued.

14th.—Wound quite superficial; healing rapidly. Forearm and jaw doing well. Temperature 98°; pulse 110.

17th.—Antiseptic dressing discontinued; wound healing; union of femur considerable; jaw discharging. Croft's splints applied to forearm.

April 16th. — Thigh put up in a starch case; wound healed.

At the end of May he was quite convalescent, and walked in the garden of the hospital daily.

Note by Mr. WEST.—Mr. Jordan Lloyd, house-surgeon, and Mr. Harbord, my dresser, have given the man the greatest attention. The continuous discharge of blood from the ears, nose and mouth, for twenty-four hours, points to the possible fracture of the base of the skull; and, in addition, the retention of the urine suggests the probability that in the terrible fall (45 feet) which he sustained, his spine was concussed, even if there was no fracture of the vertebral column. With such a complication of injuries death is usual. The man's recovery seemed at first next to impossible; but he was in the prime of life and had a good constitution. No more unfavourable case could have been selected for the use of the antiseptic treatment of a compound fracture of the femur, and yet the result was excellent.

ROYAL INFIRMARY, EDINBURGH.

CASES OF LOOSE CARTILAGES REMOVED FROM THE KNEE-JOINT BY DIRECT INCISION WITH ANTISEPTIC PRECAUTIONS.

(Under the care of Professor ANNANDALE.)

FOR the notes of the following cases we are indebted to Mr. J. M. Cotterill, M.B., F.R.C.S.E.

T. M——, aged sixty-eight, a coachman, was admitted on the 2nd of March, 1878. He stated that twenty years ago he suffered from a loose cartilage in his right knee-joint, and that he underwent an operation at that time at the hands of Mr. Syme, who fixed the cartilage under the superficial tissues in the usual manner. Very soon afterwards a second loose cartilage was felt in the same joint, but it had not given him any trouble till the autumn of 1877. As both cartilages of late caused pain and swelling of the joint, he presented himself for treatment.

On March 4th Mr. Annandale made a free incision into the joint with antiseptic precautions, opening it on its inner aspect, and removed three loose cartilages, a specimen of which is shown in Fig. 1. The wound was stitched up, and no drainage-tube was introduced. The wound healed by first intention, and throughout the progress of the case there was no swelling or inflammation of the joint, nor constitutional disturbance. The patient left the hospital on the 5th of April cured. He has been heard of since, and the result is in every way satisfactory.

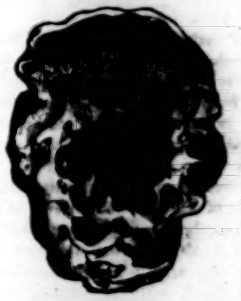
Rev. J. B——, aged thirty, was admitted to a private ward in the infirmary on Oct. 4th, 1878. He stated that he

had felt the loose cartilage in his left knee-joint for the last six years, but that only for the last nine days had it given him any pain, it having at that time got fixed between the surfaces of the joint. He attributed it to a sprain he gave

FIG. 1.

the knee shortly before he first noticed the presence of the loose cartilage. On Oct. 5th Mr. Annandale made an incision three inches in length on the outer aspect of the knee into the joint, and removed the loose cartilage shown in Fig. 2. (Both figures are life-size.) As in the other case,

FIG. 2.



the wound was closed, and no drainage-tube was inserted. The wound healed rapidly by first intention, and after four dressings with the carbolic spray it was found to be skinned over.

In this case also there was no swelling or pain in the joint after the operation, and the patient left the infirmary on Nov. 2nd, cured. He returned afterwards, and reported that he was able to walk long distances, with no inconvenience and no perceptible limp.

Note by Professor ANNANDALE. — These cases are good illustrations of loose cartilages of considerable size in the knee-joint; and the excellent result obtained in both instances proves the safety of cutting into healthy joints, provided the Listerian antiseptics be carefully employed.

Reviews and Notices of Books.

Nouveau Dictionnaire de Médecine et de Chirurgie Pratiques. Tome XXVI. PAR—PER. pp. 828. Baillière et Fils. 1878.

THERE are ten principal articles in this volume. Paralysies, by Achille Foville, fils; Parotide, by Edmond Delorme; Paupières, by F. Panas; Peau, by Cuffer; Pellagra, by Henri Gintrac; Penis, by G. Voelcker; Percussion, by Alfred Luton; Pericardium and Pericarditis, by Maurice Reynaud; Perineum, by P. Marduel; and Peritoneum and Peritonitis, the anatomy by L. Merlin, and the pathology by MM. Siredey and Daulos. Besides these there are a good many minor articles.

Paralyses are considered under two heads, the organic and the functional; the latter including the acinesiæ observed in the course, or as sequelæ, of acute diseases and hysterical and reflex paralyses. The progress of medical knowledge will probably ultimately cause the second group to be included in the first. The author of the paper describes at considerable length the changes known as secondary degeneration of nerves; he quotes Todd's division of hemiplegias, and notes the forms of paralysis which have been shown by Hitzig, Ferrier, and others to be associated with lesion of the cerebral cortex. The symptoms are, of course, given very fully and completely, and in the course of them we have been struck with the advances that have been made in the mode of investigating disease, and the improved means of diagnosis that are now at the disposal of the physician as compared with those he possessed but a few years ago. The thermometer, the æsthesiometer, the electric battery, though they will not take the place of the *tactus eruditus* and of careful observation, yet collectively supply information that was formerly neglected; whilst the microscopic examination of the muscles even during life, and of both muscles and nerves after death, affords indications for treatment of the most valuable nature. The credit of the recognition of general paralysis, and its connexion with mental disease, is given to the school of Pinel and of Esquirol, though the prior observations of Haslam and Perfect are admitted. The symptoms are considered under the heads of those of motility, those of the intellect, of the senses, impulsive delirium, and accessory troubles. Amongst the latter those due to changes in the eyes are detailed, and we can quite endorse the statement, having examined a large number of such cases, that whilst by means of the ophthalmoscope but little information can be gained in the latter stages of the disease, the characters being only those of more or less whiteness or congestion of the discs, some degree of assistance can be afforded in the prognosis of the earlier stages.

In the article on the Parotid Gland the anatomy of this gland is well given, but we should have expected a fuller account of the physiology; perhaps it will be given under the head "Salivary Glands." The lingual and glossopharyngeal nerves are, by a slip of the pen, stated to be the centrifugal nerves in the reflex act, leading to secretion of saliva. A full description of parotitis is appended, and the importance of early incision dwelt upon. The incision should be made parallel to the ramus of the jaw. The section on Tumours of the Parotid is long and instructive.

In the article on the Pericardium the reader will find some interesting information with respect to the relation of the volume of the heart, to the capacity of the pericardial sac, and the exact anatomical relation of the heart to the other thoracic organs and to the walls of the chest. M. Reynaud thinks that Ormerod and Taylor greatly over-estimate the frequency of rheumatism in the etiology of pericarditis. These observers thought from fifty-four to seventy-two per cent. were due to rheumatism, whereas M. Reynaud agrees with Bamberger and Hache in thinking the proportion of cases in which rheumatism plays a part to be from twenty-one to thirty per cent. Perhaps the difference may be referred to climatic condition.

One of the best articles in the volume is that on Eyelids (Paupières), by Panas. It commences with an account of the anatomy and physiology of these parts, but does not settle the disputed point whether there are true glands in the *culs de sac* of the conjunctiva. The pathology treats successively of wounds, inflammation, burns, ulcers, and gangrene, lagophthalmos, ankyloblepharon, symblepharon, ectropion, entropion, trichiasis, dermatosis, tumours, and vices of conformation. The sections on ectropion and entropion are remarkably full and complete, and the text is illustrated by many drawings, giving almost every mode of treatment that has been suggested for these extremely disfiguring cases, which are so difficult to cure. In speaking of trichiasis M. Panas refers somewhat contemptuously, as a thing of the past, to the practice, long ago recommended by Celsus, of snaring the misplaced hairs with a loop of human hair, and carrying it through a wound made by a fine

needle. We have, however, seen excellent results follow this method of treatment, which has the advantage of being unattended by any disfigurement, even if it fail, which can by no means be said of some of the other operations that have been adopted. M. Panas, again, appears to be opposed to the removal of cysts of the lids from the outside, on the ground that a button-hole may be made and a fistulous orifice left; but with care it is unnecessary to make a hole through the conjunctiva, and even when this has accidentally been made it is not followed by the formation of a fistula, whilst it is an incomparably superior method to the process of stirring up with a needle when the tumour is large and situated on the outer surface of the cartilage.

The article on the Skin is limited to a consideration of its anatomy and physiology, as the several diseases are discussed under their appropriate headings in other parts of the dictionary. M. Sappey, by calculation, estimates the number of papillæ on the surface of the whole body at 150,000,000, which gives some idea of the importance of this vasculo-nervous network.

It is curious to see the errors of orthography that occasionally occur. Our friend, Dr. Weir Mitchell, would hardly recognise himself or the disease he has done so much to elucidate, when referred to under the name of "Weio (Mitchell) athetore."

Lectures on Diseases of the Nervous System. By SAMUEL WILKS, M.D., F.R.S. London: J. and A. Churchill.

FEW lectures which have been published in the medical journals excited more interest than those of Dr. Wilks on Diseases of the Nervous System, which appeared about ten years ago, and the profession will be grateful for their publication in a separate form. These lectures occupy a unique place among the many treatises upon the subject. Dr. Wilks is well known to be one of the most thoughtful psychologists and physicians of the day, and this double character is well exemplified in the pages of this volume. It presents a combination of a large amount of observation in the diseases of which it treats, a considerable amount of reading, much thoughtful reflection, a charming style, and uncompromising firmness in the assertion of some opinions which are not universally received. There is no trace of "book-making." All the author's acquisitions from observation and reading are well digested, and even assimilated. The description of disease is always accurate, although that of some is scanty. The system of the work is described in the preface as "heterogeneous"; but the author "consoles himself with the conviction that, with our present existing nomenclature, it is impossible to frame a systematic view of nervous diseases on any rational basis whatever, be it anatomical, pathological, or clinical"—a consolation not altogether unjustified. It is in the psychological and sociological aspects of nervous diseases that Dr. Wilks finds himself "not at home," for he is nowhere "at large," but in his most congenial element, and their points, such as the bilateral function of the brain, the phenomena of aphasia, of hysteria, &c., are dwelt on at much length, not, perhaps, unduly, having regard to the relative importance of the subject, but somewhat at the expense of minor topics. His aptness and wealth of simile, the illustrations from literature and art, are remarkable, and render the book very pleasant reading. As a practical guide to diagnosis it is of less value, partly in consequence of the mode in which subjects are treated, and because a large amount of modern work, especially foreign, is not mentioned. Indeed, it is probable that many readers will think that the general work on nervous diseases has been looked at through powerful "Guy's spectacles," which render everything achieved at that distinguished school conspicuous, while results elsewhere have to be very prominent to be seen at all, and he might receive the opinion that there was little in recent researches which had not been in some degree anticipated at Guy's. The sections on treatment are founded almost exclusively on the author's own experience, and are, with respect to many diseases, somewhat meagre. They possess, however, in the most part, the value which attaches to careful observation. A few exceptions are presented by recommendations, sometimes rather suggested than made, founded upon one or two cases only, some of which, such as the value of the constant current in paralysis agitans, are opposed to the experience of others. The shortcomings prevent the book being quite an adequate representation of the general knowledge of the day. But these defects in some points are compensated for in others by the peculiar excellences of the work, which will probably give it, in the future, an honoured position among the classical treatises of English medical literature.

The Law Relating to Quarantine of Her Majesty's Dominions at Home and Abroad. By Sir SHERSTON BAKER, Bart., of Lincoln's Inn, Barrister-at-Law. London: C. Kegan Paul and Co. 1879.

THE plague, or rather its threatening, has once more aroused in the minds of commercial men, travellers, and all those whose business it is to rush about the world across land and waters, fears of detention here, there, and everywhere, with all its attendant evils and excessive discomforts, and, as a natural consequence, the literature of quarantine has once again come to the front. Sir Sherston Baker, a young barrister of some prominence, has collected the British aspects of the question, and all other particulars in connexion with outbreaks of plague or pestilence, from as early a date as A.D. 430, bringing us down to 1866, when the "black death" appeared in Dublin; and has endeavoured to explain, as we think with fair success, the statutes that exist in this country with a view to prevent the introduction of noisome and excessively fatal epidemic diseases. Extensive quotations are made from the Public Health Act of 1875, and the major part of the appendix is occupied with a verbatim copy of the qualifications and duties of port medical officers of health and sanitary inspectors, which we find are transcribed without any special acknowledgment from the biannual reports presented to the Corporation of London by the Port Sanitary Committee. However, "good wine needs no bush."

Leçons Cliniques sur la Contracture du Col Vésical. Par le Dr. DELEFOSSE. Paris: J. B. Baillière et Fils. 1879.

IN these five lectures a subject but little noted in English works is tolerably fully discussed. The views of several authors as to what is really the "neck of the bladder" are stated, and Dr. Delefosse maintains that really it extends from the opening into the bladder to the end of the membranous, or rather muscular, portion of the urethra. He describes a band of unstriped muscle round the internal urinary meatus, just behind, but free from, the base of the prostate, and this he calls the internal sphincter; and the compressed urethra, between the two layers of the triangular ligament, composed of striped fibres, he calls the external sphincter. These two sphincters always act together; overaction of one of them excites spasm of the other. It is the contracture of the sphincters, or their chronic pathological overaction, that forms the subject of these lectures. In speaking of the etiology of the affection special stress is laid upon the fact that rheumatism is an exciting cause, and one always to be looked for. The symptoms, diagnosis, and treatment of this contracture are well and clearly dealt with. We are struck with the fact that Dr. Delefosse gives contracture as a complication of all urethral and vesical diseases, and attributes to it all the subjective symptoms which are met with in urinary diseases,—pain, retention of urine, frequent mic-

turition, incontinence, and so on. Part of the last chapter is devoted to a useful review of the properties of some of the natural waters most often used in urinary diseases.

The Popular Science Review. Edited by W. S. DALLAS. July, 1879. No. XI., New Series.

THIS number contains a paper by Professor P. Martin Duncan on Light-emitting Animals, in which he describes and discusses the cause of the phenomenon of light observed in the glowworm, fireflies, noctiluca, many hydrozoa, pennatula, pavonia, pyrosoma, umbellularia, and others. The umbellularia was brought up by Sir Wyville Thomson in the *Challenger*, from a depth of 2125 fathoms. It is a magnificent clustered alcyonarian polype, and when taken from the trawl, the polypes and the membrane covering the hard axis of the stem were so brightly phosphorescent that Capt. Maclear found it easy to determine the character of the light by the spectroscope. It gave a very restrictedly continuous spectrum, sharply included between the lines *b* and D. Mr. Robert Scott contributes an interesting article on the Birth, Life, and Death of a Storm, which shows that the meteorologists, if they can teach us much, have also themselves much to learn, for there are no less than four theories of storm genesis. Professor Owen writes on the Extinct Animals of the Colonies of Great Britain, and describes in popular language several of the more interesting fossil animals of Australia. Mr. Lowne discusses the question whether Nest-building is an Instinct in Birds. Lastly, Mr. Etheridge gives an account of the position of the Silurian, Devonian, and Carboniferous rocks in the London area.

THE PARKES MUSEUM.

No. I.

THE report prefixed to the catalogue of the Parkes Museum says that "the present collection is but a skeleton, a mere foreshadowing, we hope, of that which is to be—an earnest of our intentions in the future, and not by any means the consummation of them." He who has formed his idea of the museum by a perusal of the catalogue and report will, we think, be somewhat agreeably surprised on viewing the collection itself, for already it has assumed very considerable dimensions, and in some departments of hygiene is capable of conveying a vast amount of valuable information.

The articles exhibited under Class 2 (architecture), and especially in the section having reference to "the details of construction," are varied and numerous, and we purpose devoting the present article to a discussion of some of the more important among them.

The most common cause of unhealthiness in a modern dwelling is the watercloset, and the collection of these apparatus in the Parkes Museum is well adapted for a comparative study of their merits and demerits.

It is an undoubted advantage to have a watercloset constructed in one piece of earthenware, and thereby to secure an absence of joints, which often give rise to leakages and other troubles. Earthenware, again, is, of all materials, the most cleanly, and is not liable to corrosion, as are the metals usually employed in the construction of waterclosets. There are several closets constructed in one piece, and, first among them, we must notice the so-called "*Monkey*" *Closet*, manufactured by George Jennings, of Stangate. It was first introduced in 1851. The outlet from the basin is at its posterior part, and, the lower rim of the outlet being somewhat higher than the bottom of the basin, there is always a small quantity of water in the concavity of the pan itself, into which the soil is dropped. In this respect this closet has the same advantages as the ordinary valve and pan closet. It is evident, however, that some force other than gravity is required to empty the basin of its contents—in fact, the soil has, so to say, to be *driven out* of the basin, since it cannot drop out. Herein consists the one drawback in these closets. The basin has a "flushing rim," and the stream of water is directed from before backwards, and where the water-supply is fairly good the emptying of the basin is efficiently done. The outlet-pipe takes an S turn beneath the basin, thus forming a trap, and beyond this a ventilating pipe, having a diameter of an inch and a half, is fixed. The mistake is often made of having a ventilating pipe with too small a diameter, and we even doubt whether the one-and-a-half inch pipe provided in this closet is big enough to be thoroughly effective.

The "*Excelsior*" *Valveless Closet*, which has been patented by Mr. Bostel, of Brighton, resembles the foregoing in many particulars. There is a double supply-pipe (one on each side), forming a junction with the "flushing rim," and there is a special opening to give access to the trap to enable it to be cleared by the hand or "forced" by means of a plunger. This is, no doubt, a great advantage. This closet does not appear to be provided with a ventilating pipe beyond the trap.

Hellyer's Patent Vortex Closet and Trap is shaped very much like the old-fashioned "hopper" closet, and being provided with an out-go pipe, which rises vertically six inches above the bottom of the basin before taking its downward turn, there must always be at least six inches of water standing in the basin, into which all soil drops without touching the sides. With a flush of three gallons of water this closet is said to be thoroughly efficient and capable of clearing completely a large quantity of soil and paper. Its construction is admirably simple, and beyond the trap there is a two-inch ventilating pipe.

Dodd's Ventilating Watercloset, in one piece, does not differ very materially from some of the others. The out-go pipe is, however, in the front of the basin instead of being behind, and the ventilating pipe placed beyond the trap has a diameter of two inches and a half, which is undoubtedly a very great point in its favour.

Jenning's Patent Valve Watercloset, with trap in one piece, very closely resembles the "monkey" closet described above. Between the out-go and the trap there is a plug provided with an india-rubber rim, which retains the water in the basin until it is pulled up. This allows of the basin having a continuous slope, so that its contents are more easily expelled than in the "monkey" closet.

Pearson's Patent Trapless Twin-basin Closet is of peculiar and novel construction. Like the others we have mentioned, it is in one piece, and, like the foregoing, it is provided with a plug between the out-go and the soil-pipe. It is composed of a double basin, or, more properly speaking, of a single basin, divided by a diaphragm. The first basin is intended to receive the soil, and its upper part is provided with a "fan" water inlet, while at its lower and posterior part is the opening (beneath the diaphragm) into the second basin. The second basin contains the plug, plugging the orifice of the out-go, a ball-cock regulating the flow of water, and an overflow which, starting from the bottom of the basin, makes a high syphon curve by the side of the basin, and empties into the out-go beneath the plug. The closet having been used the plug is raised, and the volume of water standing in the basin rushes forcibly into the soil-pipe without meeting any impediment, such as is necessarily offered by a trap; the soil is thus forced out of the basin, and the descent of the ball-cock causes an inflow of water, which continues until the ball floats to its proper level. The close-fitting plug prevents the return of sewer-gas, but it appears to us that if the water-supply should fail there is nothing to prevent the return of sewer-gas by the overflow pipe. It is questionable also whether the soil would not adhere to the plug and ball-cock in the second basin; this, however, is a question which can only be answered by experience.

There is found to be one practical objection to one-piece earthenware waterclosets, and that is, the difficulty which workmen, especially such as are unskilled or slovenly, find in making the junction between the earthenware closet and the soil-pipe. It is an easy matter to screw an iron valve-box on to the board which encases the upper end of the soil-pipe, but it is found that the fixing of porcelain requires far greater nicety and care. We think it would be advisable to provide these porcelain one-piece closets with metal junctions, before they leave the works, so as to guard against the possibility of second-rate workmen bringing these closets into disrepute.

Jenning's Trapless Watercloset is provided with a plug

between the basin and the soil-pipe, and when the plug is withdrawn the contents of the basin fall directly and forcibly into the sewer. There is an overflow pipe, which is provided with a trap, and in order to insure the efficiency of this trap a special water-supply is provided for it from the inlet-pipe. In one modification of this closet the plug and overflow are ingeniously combined, and the overflow is trapped by means of an india-rubber ball in such a way that gas or water can only pass in one direction. This trap in some degree resembles the "Bower" trap, which may be known to some of our readers.

Several contrivances for preventing the waste of water find a place in the museum. One is the double cistern attached to *Bolding's Seat-action Closet*. Another is *Tylor's "Waste-not"* regulator; and a third is Jenning's patent arrangement for preventing the waste of water, attached to his trapless Brahmah watercloset. These useful mechanisms scarcely admit of description without the aid of diagrams.

In connexion with this subject we must mention the *"Duplex ventilating lid,"* an ingenious contrivance invented by Mr. Saxon Snell, which ensures that all effluvia from closets and sinks are directed into specially constructed flues. There are many other varieties of water-closets in the museum, as well as earth-closets and ash-closets, but these, as well as the slop-sinks, of which there are two or three displayed, we are precluded by want of space from describing at length. Dr. Heron's model of a mechanism for disconnecting the waterclosets from the sewer is most ingenious, and well merits careful attention. In a future article we shall deal with the apparatus for draining and ventilating.

DEATH REGISTRATION IN IRELAND.

ALL who have had cause to study and compare the mortal statistics of the several portions of the United Kingdom must have become convinced that the statistics issued from time to time by the Registrar-General of Ireland were so seriously imperfect as to be of little value for comparative purposes, and to vitiate, to a certain extent, the figures for the United Kingdom. For many years the English Registrar-General was accustomed (with the authority of the Registrar-General of Ireland) to disregard the Irish figures, and, in order to obtain results for the United Kingdom, to assume that the birth, death, and marriage rates for Ireland were the same as those that prevailed in Great Britain. More recently, however, the Irish figures have been accepted in the English reports for the purpose of making up totals for the United Kingdom. We were not informed whether this change of practice was due to any good cause for increased faith in the approximate accuracy of the Irish figures. Judging, however, from recent weekly returns for Dublin, there is good ground for believing that at any rate death registration in Ireland is still very seriously defective. During the five weeks ending 28th June, 461 deaths were registered in Dublin that occurred in the first five months of the year, but only came to the knowledge of the local registrars in consequence of the Burial Returns, which are now furnished to registrars in accordance with the provisions of the Public Health (Ireland) Act, 1878. It is enacted in section 191 of that Act that the authorities of every burial-ground "shall make or cause to be made, at such times and in such manner as the Local Government Board may direct, a return of the names, addresses, dates of death, and causes of death, so far as ascertained, of the persons whose bodies have been interred in such burial ground, to the registrar of the district in which such persons resided at the dates of their deaths respectively." It appears that the Local Government Board have now called upon the authorities of the cemetery and burial grounds in and about Dublin, in accordance with the above-quoted section, to furnish to the local registrars monthly lists of the names &c. of all persons buried, the result of which has been to bring to light the unwelcome fact that so recently as during the first five months of this year no less than nine per cent. of the deaths occurring in Dublin escaped registration. The suspicion of imperfect registration in Ireland has received, as to the extent of the imperfection, unsuspected confirmation. It is, of course, satisfactory to find that some measures have been taken to rectify the Irish death register, and to supply the omissions. It may, however, well be doubted whether the manner of redress of those imperfections is quite satisfactory. According to the English Registration Act, "the person who buries or performs any funeral or religious service for the burial of any dead body as to which no certificate of registration is delivered to him, shall, within seven days after the burial, give notice in writing to the registrar, and if he fail so to do shall be liable to a penalty not exceeding ten pounds." A clause to this effect in the Public Health (Ireland) Act of 1878 would have been infinitely preferable to that which has brought to light the marked deficiencies of registration in Ireland. The monthly lists of all burials now furnished to registrars will not only entail the necessity for such laborious comparison with each entry in the local death-register as to run the risk of being neglected, but the system will not prevent the present great irregularity in registration of deaths, which to a great extent destroys the value of the periodical mortality statistics published by the Registrar-General of Ireland. The current weekly returns for Dublin are now, for instance, robbed of their value for sanitary purposes from the fact that the deaths registered in any week include a large proportion that occurred a month or two prior to the date of the return, whereas about 9 per cent. of the deaths that ought to have been recorded escape timely registration, and will be entered on the register a month or two afterwards. It seems strange that instead of adopting the clumsy and unsatisfactory expedient of monthly burial returns provided by the Public Health (Ireland) Act, measures should not have been taken to assimilate the Irish registration system to that which works satisfactorily in England. There is no ground for suspecting that any appreciable number of deaths escape registration in England, neither is there any considerable delay in registering deaths. We fear that there is very little probability under the new Irish system of any complete reform of the present serious irregularity of registration, although the proportion of omissions may probably be considerably reduced.

HEALTH OF LARGE ENGLISH TOWNS
IN THE THIRTIETH WEEK OF 1879.

IN twenty of the largest English towns 5021 births and 2489 deaths were registered during last week. The births were 161, and the deaths so many as 881, below the average weekly numbers during 1878. The deaths showed, however, an increase of 71 upon the exceptionally low number returned in the previous week. The annual rate of mortality per 1000 persons living, which had almost steadily declined in the twenty preceding weeks from 29·1 to 17·1, was last week equal to 17·6. During the four weeks of July ending the 26th ult. the annual death-rate in these towns averaged only 17·6 per 1000, against 23·0 in the corresponding periods of the three years 1876–7–8. The lowest death-rates in these twenty towns last week were 10·3 in Portsmouth, 12·2 in Norwich, and 14·2 both in Bristol and Nottingham. The rates in the other towns ranged upwards to 19·7 in Plymouth, 20·6 in Oldham, 20·8 in Manchester, 20·8 in Brighton, and 21·4 in Sunderland. The deaths referred to the seven principal zymotic diseases in the twenty towns were 364 last week, and exceeded the low number in the previous week by but 16. They included 103 from scarlet fever, 78 from measles, 62 from whooping-cough, and 42 from fever, principally enteric. The annual death-rate from these seven diseases averaged only 2·6 per 1000; while it was but 0·4 and 0·5 in Portsmouth and Bristol, it ranged upwards to 3·9 and 4·7 in Sheffield and Salford. Scarlet fever showed the greatest proportional fatality in Sheffield; measles in Salford; and enteric fever in Salford, Hull, and Leeds. Only 61 deaths were referred to diarrhœa in the twenty towns last week, against 904, 275, and 991 in the corresponding weeks of the three years 1876–7–8. Small-pox caused 6 more deaths in London, but no fatal case was recorded in any of the nineteen large provincial towns. The number of small-pox patients in the Metropolitan Asylum Hospitals fell during last week to 113, from 190, 172, and 137 at the end of the three preceding weeks; 20 new cases of small-pox were admitted to these hospitals during last week, against 21 and 17 in the two previous weeks. The Highgate Small-pox Hospital contained 12 patients on Saturday last.

THE LANCET.

LONDON: SATURDAY, AUGUST 2, 1879.

WE commend to the attention of our readers the evidence of Professor TURNER and Professor HAUGHTON. Professor TURNER'S account of the work done by Edinburgh, and of the terms of medical graduation there, are the best answers to his own opposition to the Conjoint Scheme, as well as to Mr. SIMON'S light estimate of the conditions of graduation. The four years of study, two of them necessarily in a university; the extended system of education on which the curriculum is based; the wider range of subjects constituting the curriculum; the more complete scientific training demanded; the separate examinations in Pathology, Forensic Medicine, and Public Health, justify Professor TURNER in his high estimate of the medical degrees given by his university, and explain the warm and generous praise accorded to them, as medical and surgical qualifications, by Professor HAUGHTON, who is no mean judge. The weakest part of Professor TURNER'S evidence is where he attempted to show that the universities of Scotland would suffer by the establishment of Conjoint Schemes. Admitting the poverty of some Scotch students, this argument is not so powerful as it used to be, simply because Scotland is not so poor as she used to be. There will still be ample demand for her degrees. And there is nothing in the Conjoint Scheme to make Scotch education less valuable than at present, the demand for which is almost in excess of the supply. Professor TURNER made two suggestions for meeting the objections of the Scotch opponents of Conjoint Boards. One was to recognise the university examinations on condition that a certain proportion of the university examining board were nominated by the Conjoint Board; or to restrict the examination of Conjoint Boards to clinical subjects. Of the alternatives, we prefer the latter. The importance of the subjects of the first examinations cannot be overrated, and it is in regard to them that the licensing bodies have been charged with laxity.

Professor TURNER'S account of the working of the Staats Examen in Germany will be found very interesting. It does not follow, however, that because such a system has had to be modified there, it should fail here. And we see no reason why it should fail.

No witness yet examined has made a more favourable impression on those who heard him than Professor HAUGHTON. He spoke like a man who had something to say and nothing to conceal, and who was not afraid of the direct style of answering a question, as some of his colleagues in the Council previously examined evidently were. His manly and sensible view of the advantages of direct representation, as likely to supply important elements now lacking in the Council and to conciliate the profession, contrasted most favourably with the fearful, doubting concessions of the same point by some witnesses. Of course there were parts of his evidence in which we could not concur. His illustration of the good of different grades in the profession was popular rather than convincing. For example, he said, in Dublin, if a child has a cough we should send for an apothecary; if scarlet fever, we should send for a Fellow of the College of Physicians. This is a serious argument against the apothecaries. The idea is that the apothecary is fit for cases of what we may call domestic medicine—for prescribing, by a sort of rule of thumb, for a symptom, rather than, intelligently, for a disease. We need not remind so acute a man as Professor HAUGHTON that a cough needs to be treated wisely as well as scarlet fever, and that it may have as grave a signification. The whole contention of all medical reformers is to have no practitioners who are not intelligent and fairly equal to saying whether a cough means a mere cold or a pneumonia. Such practitioners would not be despised even where scarlet fever was the disease. Professor HAUGHTON does not think that Corporations would be destroyed by a Conjoint Scheme. When questioned by Dr. CAMERON as to the tendency of conjoint schemes to perpetuate certain bodies, such as the Apothecaries' Society, which some think should be allowed to retire, he said he thought for their past services they should be retained. It must be allowed that the defence of the apothecaries was the weakest part of Dr. HAUGHTON'S evidence; his evidence on other points was most valuable. He thought the student overweighted with lectures, and spoke of the importance and the attractiveness of practical work. He thought it simply absurd to require the student to attend three courses of lectures on the same subject. Of the infrequency of visitations, his candid explanation was—if we pay ourselves so much, we cannot pay visitors. Finally, he said, not only was his own personal opinion in favour of direct representation, but he was empowered to say that Trinity College was in favour of it, and, as regards the Medical Council making regulations, Trinity College was not afraid of any regulations it was likely to make.

Mr. HART, in his evidence, gave additional illustrations of the resultlessness of the recommendations of the Council, and expressed his opinion that the fees had had a bad effect on members. He went so far as to say that when the Council met they were informed by the chairman of the Business Committee how much money was in the bag, and that the members simply sat till it was gone and went home—a statement warmly contradicted by Dr. ANDREW WOOD, and which, he said, brought his blood to the boiling-point.

Dr. ANDREW WOOD'S evidence, like Professor HAUGHTON'S, was direct and outspoken. He thought moral suasion had answered very well, and that most of the principal recommendations of the Council had been honoured by the bodies—a vital point which is to be submitted to the arbitrament of facts, and to be taken out of the region of "random" statements. We shall then know who make the "random" statements, members of the Council or reformers. Dr. WOOD warmly denied that the Scotch corporations gave any quarter to the Irish and English students who failed or were likely to fail elsewhere. But he had to confess that they accepted the anatomical examinations of Apothecaries' Societies — whose *raison d'être* he thought was gone,—and that his College gave their Fellowships to licentiates of any surgical corporation without examination and on the strength of testimonials!

He expressed himself favourable to direct representation, and said he had felt from the beginning that the Council was deficient in the representation of family practitioners. Like Sir JAMES PAGET, he said, "I don't think we should lose anything by a Conjoint Board." After such honest admissions, it was but natural that Dr. ANDREW WOOD, good patriot and conservative as he is, should boast that the Corporations were fine British institutions, which none but "the journals" abused, forgetting that but for the reforms forced on these corporations by the said "journals," they would long since have been swept away as incapable of progress and adaptation.

A FEW years ago it was generally accepted that the special glands found in the duodenum—the glands of BRUNNER—belonged to the same type as, and probably subserved functions similar to, the salivary glands and the pancreas. They were considered to belong to the type of compound racemose glands until, in 1872, SCHWALBE showed that many of them also conformed to the type of compound tubular glands; and now we find M. RENAUT, one of the pupils of RANVIER at the College of France, declaring that none of them partake of the racemose structure, but that all may fall under the head of compound tubular glands. He develops this in a brief article in a recent number of the *Progrès Médical;* and as it involves some facts of interest in histology it may be worth while to reproduce the gist of his remarks in this place.

At the commencement of his paper M. RENAUT gives a brief description of an ordinary racemose gland—e.g., the parotid. It consists of a number of polyhedral acini, composed ofsecreting gland-cells, which empty their contents into an *intralobular* collecting tube, from which the acini of a lobule depend like grapes upon their pedicles. These canals are lined by striated cylindrical epithelium containing large oval nuclei, seated on a delicate basement membrane. They open into a series of larger ducts, the *interlobular*, the epithelium of which is often stratified, whilst the wall on which it is placed is more or less lamellated. These tubes in turn open into the main excretory duct, the *interlobar*, typified by the ducts named after STENO and WHARTON in the salivary glands, the epithelium of which consists of cylindrical and caliciform mucus-secreting cells.

Now the duodenal glands do not conform to this acinous type. They may be divided into two groups: the inner or superficial, which are lodged within the muscularis mucosæ; and the outer group, which lie in the lax submucous tissue outside the muscularis mucosæ. The first group form a very distinct layer visible beneath the villi and the crypts of LIEBERKUHN. When closely examined, they are seen to be composed of multifid cul-de-sacs—comparable to much-divided fingers of a glove,—a central canal from which lateral diverticula spring, without any change in calibre, the connective tissue at the point of entrance forming a spur-shaped prominence, so that if deprived of its epithelium the interior of the ramified glandular cavity would present a villous appearance. The surface of a section may present many circular spaces, as in acinous glands; but if the section have traversed the tubes in their long axis, the true character of the diverticula is seen, and the projections at their points of attachment to the collecting tubes are rendered manifest. Each gland-lobule is composed of some fifteen to twenty cul-de-sacs, opening into one another, all lined by the same kind of epithelium. There is no change in type of the epithelium as in an acinous gland; for it consists, in the main tubes as in the branches, of translucent prismatic cells, having flattened nuclei at their bases; they are somewhat columnar, and are filled with mucus, as in the muciparous glands of the œsophagus, bronchi, and pylorus. A protoplasmic process can generally be seen passing from the base of each cell to anastomose with similar processes from its neighbours, forming thus a delicate meshwork on which the cells are seated. There is no subepithelial endothelium, the underlying fixed connective-tissue corpuscles being separated from the epithelial layer by a thin, translucent, non-nucleated membrane. The secondary and tertiary diverticula all open into the same larger collecting tubes, of which the epithelium, although more flattened, has the same mucoid contents. The main collecting tube or duct passes vertically upwards to open by itself on the surface of the mucous membrane at the bottom of a deep linear sulcus, or else opens into a Lieberkühnian gland. In the latter case the transition of the epithelium is very distinct, the character of the Lieberkühnian cells being columnar with striated free border, and granular contents, intercalated with caliciform cells. This fact, that LIEBERKUHN'S crypts frequently serve as excretory ducts to BRUNNER'S glands, has not been hitherto noted.

The outer, submucous, or intermuscular group of BRUNNER'S glands do not form a regular series, but are grouped in voluminous lobulated masses, which in general configuration simulate the racemose type. But here, just as with the inner group, they are composed of multifid digitate tubes, but arranged on so complex a plan as to give the appearance of acini when divided transversely; where the section has divided them longitudinally their real conformation is apparent. The excretory tubes passing from this deeper group may receive accessions from the glands of the superficial group on their way through the muscularis mucosæ; whilst some open directly on the surface, others terminate in a Lieberkühnian crypt. From this it will be seen that M. RENAUT proves that BRUNNER'S glands pertain all to the compound tubular type, and not to the racemose; he compares their disposition to a fasciculated root, rather than to a bunch of grapes. He further believes that these glands are differentiated for the secretion of a peculiar kind of mucus; holding that the absence of any granular material in the cells shows that they do not possess the characters of cells which secrete a special ferment as well as mucus; and he points out that the true mucous glands of the œsophagus and bronchi have a similar fundamental structure. His paper concludes by pointing out the pathological fact that a diffuse papillary growth may conceivably arise in the seats of such glands under the influence of chronic inflammatory processes, the spur-like projections at the points of connexion between the cœca and the collecting tubes giving rise to such papillary outbuds. He thinks this is to be very commonly seen at the site of laryngeal mucous glands in the neighbourhood of tubercular or syphilitic ulceration, but it has not been noticed in the duodenum. We may add that possibly the

rare occurrence of cylindrical epithelioma of the duodenum may also take its rise in these glands.

M. RENAUT'S observations have been made on the human subject, and under peculiarly favourable conditions. He has been enabled to remove the first portion of the duodenum from the body of a decapitated criminal, about thirty minutes after death, when the heart could still be made to contract by mechanical irritation. The portions removed were hardened in alcohol, and in solutions of gum and alcohol; and the microscopical sections variously stained with purpurine, picrocarmine, and a new reagent, which he terms "primérose hæmatoxylique," prepared by mixing a solution of eosin with hæmatoxylin solution.

IT may be doubtful whether, in these days of keen and restless competition, professional work is more exhausting than commercial business. The old line of distinction between the two forms of enterprise is obliterated. It can no longer be said that the tradesman labours with his hands, controlled by a low form or variety of brain energy, while the professional man works with his mind and intellect. The tax on brain-power is probably as heavy in trade as in the schools or in practice, if we take into account the ceaseless struggle to devise and execute elaborate schemes of action and counter-action, by which success in commerce is now mainly, if not exclusively, accomplished. Speaking generally, it must be conceded that the man of business is exposed to as many cares, and called upon to exercise as much nerve-force, as his professional fellow-citizen. The merchant and stockbroker are as likely to suffer from "overwork," of a sort in which brain strength is exhausted, as the lawyer or clergyman. Meanwhile there is one profession which must needs, to the end of time, exceed all others in the weight and grip of the burden it casts on the mind and nervous system—that is, the medical.

What other men endure and are called upon to do and bear in the way of anxiety during moments or hours, it may sometimes be, of special strain or difficulty, is spread over the life of the medical practitioner. His bodily strength is taxed by long and irregular hours of labour, with prolonged periods of abstinence, deprivation of sleep, and severe muscular exertion. He is exposed to changes of temperature, to all weathers, to the contagion and infection of disease; and, withal, his nerves are strained and wrung by the perpetual appeal to his feelings in scenes of sorrow, suffering, and death. The thoughtless and unobservant deem the average practitioner of medicine "case-hardened." They look upon him as a man who has, so to say, had his human susceptibilities seared and blunted by habit! How little do they know the struggle with self which is going on within; *how* the calm exterior is preserved; how the emotional nature is held in check, lest it should embarrass or impair the discharge of duty. The semblance of heartlessness, which may sometimes seem to characterise the practitioner, has nothing in common with want of feeling, or lack of sympathy with the sick and the bereaved; it is more commonly the direct effect of effort to control or conceal the intensity of the emotions suppressed. The brusque and quick surgeon is often not only especially expert, but if his "feelings" were not held firmly in check he would be seen to be peculiarly emotional. The reserved physician who fulfils his functions in the sick chamber with rigid propriety is not uncommonly a man of most acute sensibilities; while the general practitioner, who goes through his daily routine of agonising experiences as though unmoved, discharges his duty at the cost of an expenditure of mental force which is at once painful and exhausting. All this counts for nothing to the public; and, which is of far greater moment, it is too commonly forgotten by members of our profession themselves, when they balance the profit and loss of a career that, perhaps more than any other, engrosses and beguiles the consciousness, while it exhausts the energy and drains the strength.

The demand for intervals of relief from medical work and worry is imperative; not the less so because it is in the majority of instances unheeded or resisted. As a matter of fact, probably a smaller proportion of the members of the medical profession enjoy an annual holiday than of any other department of industry. Physicians and surgeons may indulge in the luxury of a brief absence from the scene of their labours, but the great majority of the profession, the multitude of general practitioners, pursue the path of toil and anxiety without respite. This is a mistaken and, we believe, short-sighted policy, but it is one which seems to be forced on men fettered with family and local obligations. It is generally difficult to secure the services of a satisfactory *locum tenens;* and the emoluments of a medical life are not, as a rule, sufficient to admit of any large annual expenditure on what, for the moment at least, seems to be a selfish indulgence. The experience of those who *do* enjoy a yearly holiday, and the story of disappointment, or, at best, ill-requited toil, which too generally forms the burden of an obituary—where the deceased practitioner has exhibited more than ordinary devotion to routine duty,—should convince men engaged in general practice that little, if anything, is lost, while, in the long-run, much is gained, by such a periodical absence from work as health and inclination combine to dictate.

The feeling of mental and physical fatigue and lassitude which is experienced by most busy workers when the depressing season of winter and the trying months of spring have been passed, more or less laboriously, constitutes a warning symptom. The stock of mind and body strength is running low; the machinery of life has become heated; and rest is required—the rest which consists not in passive indolence, but in some active and healthful diversion of energy. When routine work is carried on regardless of this monotonous dead-point in the generation of motive force, there may seem to be a recovery of strength; the pride of self-conquest often supplies an impulse which mocks the vigour of health and energy. Nevertheless, the drain on the vital force proceeds, and sooner or later, in the process of years it may be, when some extraordinary trial occurs, or sickness calls for an unwonted out-putting of strength to cope with the onslaught or crippling strength of disease, the reserves are found to be exhausted. The economy of life is like banking; a circulation of draughts on the credit of the system may keep the concern going for a time, but in the end stability is a question of reserves. The practitioner who, by self-denial, does without his holiday, is simply drawing on his strength, and the time will come when a balance must be struck, and the system will be found

bankrupt if there is no solid and properly-replenished stock of strength held in reserve. Moreover, the daily business of life will be imperfectly performed unless resilience and tension are maintained by energy recuperated as fast as it is converted and consumed.

We hold the annual holiday to be a *duty* which the practitioner owes himself, his patients, science, and those who are dependent on his arduous and exacting toil of brain and body. Those who "do not feel the need" of a respite from their exertions should take it as a part of the routine obligations of citizenship. It would facilitate this policy if an organised scheme of aid could be instituted, young men for a time acting as *locum tenens*. It is not impossible that junior members of our profession who contemplate practising as pure physicians and surgeons, and who under existing circumstances fail to enjoy the opportunities of obtaining a practical knowledge of ordinary medical work, such as forms the bulk of practice, would find the two or three years subsequent to graduation well spent in this department of industry. We throw out the suggestion for what it is worth, and leave to others the task of working it into detail. In any event the busy general practitioner *needs* his annual holiday, and the profession would be well engaged in devising a plan by which he might more generally and conveniently enjoy it.

EARL CAMPERDOWN'S motion in the House of Lords concerning the principle on which compensation is awarded for property taken under the Artisans and Labourers' Dwellings Act, touched a part only of a much wider subject on which a certain sensitiveness is beginning to show itself in Parliament, not before it was time. We refer to the vast and progressively increasing indebtedness of local authorities for sanitary works. When the provinces alone have outstanding debts of over forty millions sterling for this purpose, and have for the past two or three years been obtaining further loans at the rate of about two millions and a half yearly, with a certainty of larger sums being wanted in the future; while the metropolis revels in an indebtedness for the same purpose proportionate to its conception of its own magnificence, it was reasonable to expect that, sooner or later, a revulsion of public feeling on the subject would come, and it would appear as if we were now upon the eve of such a change. Early in the session this indebtedness by local authorities for sanitary works was the subject of remarks in the House of Commons significant of discontent, and Earl CAMPERDOWN'S motion in the House of Lords represents a phase of the same question. It is natural that, in this period of greatly depressed trade, the subject, as touched upon in both Houses, should have assumed, as it were, a purely monetary aspect, in the sense of a penny saved is a penny gained, irrespective of other considerations. Thus, Earl CAMPERDOWN spoke of the "enormous pecuniary loss" to which the ratepayers of the metropolis had already been subjected by the operation of the Artisans and Labourers' Dwellings Act; and in like manner in the House of Commons the corresponding question was dealt with mainly from the most restricted pounds, shillings, and pence point of view (always excepting the near prospect of a general election, and the desirability of soothing the feelings of "economical" ratepayers). This is much to be regretted, for if this sentiment grows, it cannot but prove to be in the highest degree detrimental to sanitary work. If, however, it should assume, in the further progress of the revulsion, the form of dissatisfaction as to the apparent want of a due relation between the money expended and the results obtained from the expenditure, nothing but good can come from it.

From the time of the formation of the Local Government Board in 1872 and the organisation of the sanitary service of the country on its present basis, no sort of inquiry has been made as to the efficiency of the sanitary administration instituted, either central or local, for its purposes. Costly agencies have been set at work, costlier works have been undertaken, but as to whether the agencies have done their work as this ought to have been done, or the works themselves have been executed in a proper and economical fashion, or even executed at all, nothing is known with certainty. We have been content to get a scheme in operation which admits of being talked of in grandiose language, and then we have left it to itself. This scheme began with a Departmental muddle perhaps unique even in the history of such muddles, but we have been satisfied, as getting rid for the moment of a troublesome matter, to accept the muddle and to believe, thanks to the self-rectifying peculiarities of English local government, that all will prove right in the end. Bills of costs, most conveniently measured by millions, are, however, beginning to disturb the equanimity of Parliament and the people, and we may anticipate that that equanimity will become further disturbed when it is understood (as it should be) that of all these millions it is doubtful whether anything is certainly known of the uses to which they have been applied, judicious or otherwise. Little, for example, is actually known of the millions which have been expended, or of which the expenditure is threatened, under the Artisans and Labourers' Dwellings Act in relation to the actual benefit conferred upon the class whom the Act was primarily intended to benefit; but much is rumoured of aims primarily designed for the compassing of pleasant schemes of municipal improvements under the Act. (In the metropolis this subject and other great questions involving matters essentially medico-sanitary are dealt with by a body which has no medical adviser!) Less is certainly known of the millions expended in sewerage and water-supply, but small observation is required in our cities and towns to make obvious to the least keen observer that the apparent benefits seem curiously out of proportion to the figures of the sums paid for them. Cheap and readily-obtained money makes wasteful expenditure. Parliament has provided that local authorities may have money cheap and in plenty, but it has not instituted any sufficient check on the expenditure of money derived from the public purse. It has been content to obtain good security for its repayment, leaving the rest to the sort of Providence which local government represents in Parliamentary and official life. Parliament has thus, in its eagerness to promote a great good, unwittingly done what may lead to the unspeakable disaster of a sanitary bankruptcy. We should be the last to decry a liberal and free expenditure of money for sanitary purposes, but nothing will ultimately prove so fatal to sanitary progress as money recklessly and injudiciously expended. There is reason to believe that

much of the money now expended for sanitary purposes is spent most injudiciously, and that quite needlessly; and the blame of this must rest between Parliament and the Local Government Board—the former for want of foresight in not having instituted due checks on expenditure by local authorities for which the Government provides loans, the latter for not having maintained such supervision over the expenditure of moneys which it authorises local authorities to borrow as would enable it to form a right judgment on the subject, and qualify it to advise Parliament. As the case stands, the sooner Parliament institutes an inquiry into the whole subject of the existing sanitary administration, both central and local, and into the mode of expenditure of money borrowed from the public purse by local authorities for sanitary purposes, the better for the future of sanitary administration and progress in this kingdom.

Annotations.

"Ne quid nimis."

HEALTH OF THE TROOPS IN AFGHANISTAN.

AN "occasional correspondent" sends us the following thermometric observations from Kandahar, which may prove of interest to our readers:—

Places.	June 11th.		June 12th.		June 13th.	
	11 A.M.	3 P.M.	11 A.M.	3 P.M.	11 A.M.	3 P.M.
Men's day-room (barracks)	89°	95°	90°	96°	88°	94°
Tent, covered with hurdle (grass-thatched)	98°	100°	98°	101°	97°	104°*
Ordinary single fly-tent	101°	106°	101°	109°	101°	113°

* "Chopper" about one foot above tent.

The men are ordered to remain in the rooms in daytime; but of course, especially with artillery, horses must be watered and fed in daytime, and native syces are rather scarce, only a certain percentage having come with the force.

The troops are at present somewhat overcrowded, but new barracks are being built and old ones repaired. The water is fair in quality, abundant, and filtered through sand and charcoal. The beverages consist of soda-water, ginger-beer, and a local decoction of dandelion, which plant abounds; the latter is largely consumed, and is called "dandelion beer"; it quite reminds us of the old women's drinks one hears of in youth. Rations are good. Cucumbers and fresh onions are had in abundance; potatoes periodically—about once a week, or as often as procurable. Cucumbers are very good boiled. There is also a plentiful supply of plums, peaches, and apricots to be had very cheap; grapes and figs just coming in. Latrines generally on the trench system; filth removed at fixed intervals daily to pits at some distance. Bathing parades are regularly carried out; a capital bath of running water has been excavated, and is constantly used by regiments and batteries in turn; besides, there are means of ablution close to each barrack-room. Percentage of sick, about 9. Jaundice seems quite endemic; officers and men, both European and native, suffer from it. The dry, rarefied, cold air, direct heat of the sun, and perspiration checked by this dry and comparatively cold air, may probably account for this. Fever, among the natives particularly, is rapidly followed by internal congestions and death; and those attacked complain of the exhaustion which follows—so different in this respect, they say, from the ordinary Indian periodic fevers. Of late the heat has considerably increased, and there has been a regular hot wind.

THE UNITED STATES NATIONAL BOARD OF HEALTH.

WE have before us the first number of the "Bulletin," which the National Board of Health proposes to issue weekly. It is to be the official medium for making known the sanitary rules and regulations issued by the Board, as well as those adopted by the various State and municipal authorities throughout the United States, and it will give accounts of the outbreak of epidemics occurring in any part of the States, as also information concerning epidemics abroad. It will thus be understood that the Bulletin (a term showing the curious impoverishment of the American language) promises to become a sanitary publication of the highest importance, whether as relates to the United States or to the world at large. The present number gives the constituting Act under which the National Board was formed, the constitution of the Board, the Act to provide office-rooms for the Board, and a series of rules and regulations relating to the following subjects—viz.: 1, for securing the best sanitary condition of vessels, including their cargoes, passengers, and crews, coming to the United States from any foreign port where any contagious disease exists; 2, for adoption at all ports in the United States which are or may be designated quarantine stations; 3, for securing the best sanitary condition of steamboats and other vessels, including their cargoes, passengers, and crews, going from any port of the United States where yellow fever exists, to any other port or ports in the United States; 4, for securing the best sanitary condition of railroads, including station-houses, road-beds, their cars of all descriptions, freights, passengers, and employés, coming from any point where yellow fever exists; and, 5, for adoption when yellow fever is reported or suspected to exist in any town or place in the United States. In addition are given an abstract of a report by Dr. Elisha Harris on an outbreak of diphtheria in Northern Vermont; tables of mortality from all causes and from certain specified causes in principal towns of the United States and in many foreign cities; notes from consular reports; and, finally, miscellaneous news.

REPORTS OF THE INSPECTORS OF MINES.

FROM the reports for the year 1878, which constitute a formidable blue-book recently presented to Parliament, we learn that 475,329 persons were employed in connexion with the mining industries of this country. Of these, 382,979 were employed underground, and the remaining 93,350 (of whom 4956 were women) above ground. The number of persons employed showed a decrease of 19,062 persons, as compared with the preceding year. The quantities of material raised show also a very marked decrease as compared with 1877. Thus there is a decrease of over a million and a half tons of coal, of 1,267,129 tons of ironstone, of 187,955 tons of fireclay, and of 25,123 tons of slate.

With such a marked diminution in the number of persons employed, and of the work done, it is not surprising that there should have been a diminution in the number of casualties, and we find accordingly that there were 53 less fatal accidents in 1878 than in 1877, the total number having been 811, and that the deaths caused by these accidents amounted to 1413, showing an increase of 205 on the numbers returned for the previous year. The proportion borne by the accidents and deaths to the number of persons employed and the tons of material raised gives one fatal accident for every 586 persons employed and for every 179,777 tons of mineral raised during 1878; and one fatal accident for every 572 persons employed and for every 172,276 tons of mineral raised during 1877. Although there is a proportionate decrease in the number of fatal accidents for the past year, the same is not true, unfortunately, with

regard to the number of persons killed by those accidents. In 1878 we find that one person was killed among every 336 persons employed and for every 103,177 tons of mineral raised, while in 1877 one person was killed for every 409 persons employed and for every 123,217 tons of mineral raised. Although the proportion of accidents has been smaller in 1878 than in 1877, it appears that the results of these accidents when they did occur were more disastrous in 1878.

Whilst these reports are full of interesting matter, there is not much of special interest to the readers of THE LANCET. Mr. Thomas Evans, F.G.S., speaks approvingly of the efforts of Major Duncan, the director of the Ambulance Department of the Order of St. John of Jerusalem, to alleviate the sufferings of those injured by mining accidents. "The first centre," says Mr. Evans, "was inaugurated at Clay-cross Collieries by a successful public meeting on the 10th July, at which the Order was represented by Major Duncan. Several hundred pupils have received certificates of competency, and already two lives have been saved by colliers, members of the society. Surely, in colliery districts, it is of the utmost importance that a collier should know what to do in case of injury to a fellow-workman, with perhaps no assistance within hundreds of yards, away in a remote and distant part of the mine." Mr. Evans considers that Major Duncan deserves the warmest thanks of miners for the perseverance he has shown in his humanitarian work—an opinion which we most cordially endorse.

DR. LYON PLAYFAIR'S PROPOSAL IN THE SELECT COMMITTEE.

DR. LYON PLAYFAIR has asked for a Return of the Recommendations of the Council, and of the compliance or non-compliance with them by the bodies. Dr. Playfair is to be thanked for such a suggestion. It is to be hoped that the indefatigable Registrar, Mr. Miller, will embody in the return the recommendations of the principal committees on the subject of medical education and the result of each of them. This is the crucial test of the Council's efficiency as the Council of Medical Education including representatives of all the teaching and examining bodies in the country. No one yet has attempted to deny the substantial accuracy of the charge that many of the most important recommendations of the Council, or of its most powerful committee, have been disregarded from the powerlessness of the Council to enforce them.

PRIVATE EXECUTIONS.

IT cannot be doubted that something needs to be done with a view to protect the sense and tone of public feeling from the debauching and demoralising effects of graphic accounts of judicial slaughter. It may be, and probably is, the fact that justice should, in the interests of decency, do its dirty work in private. At the same time there must be some sufficient guarantee that the dread sentence of the law is carried out with humanity. Nothing can be inferred from the fact that a black flag is hoisted on a flagstaff. The condemned person may be lying at the bottom of a pit, the rope used on the occasion having been broken, or any one of a score of "accidents," amounting to crimes, may have been committed under the shelter of secrecy. To speak frankly, we are not disposed to attach any value to the testimony of officials concerned in the conduct of an execution, and adhere to the opinion that some impartial witness or witnesses representing the public ought to be present as a matter of right and law. The recent decree of the Home Office is retrograde, and opposed to public safety. Before Parliament adjourns the subject should be brought before the House of Commons, and a short Bill passed giving the Press a legal right to be represented on the occasion of an execution. The interests of morality may be amply secured by publishing or restraining the publication of needless details. It would probably be enough to report the fact of the execution, with a brief comment on the manner in which it was performed. We yield to none in concern for public morality, but public safety is of even greater concern, and nothing can be gained by an arrangement like that recently made by the Home Secretary, which, in fact, provides the most perfect facility for the concealment of malpractices, and must create a feeling of insecurity and anxiety, which is neither desirable, nor conducive to the respect and confidence the most solemn act of justice should inspire. As the matter now stands, it is obvious that nothing beyond a little connivance is necessary to pave the way for a revival of the old practice of torture, with a view to wring confession from the lips of the poor wretch doomed to die.

A RUSSIAN VIEW OF THE RED CROSS.

MADAME B. DONKHOVSKOI, in her journal of a residence in Erzeroum during the recent Russian occupation of that city, gives a curious insight as to the views entertained by some sections of Russian society on the mission of the Red Cross. Her husband was governor of the city during the occupation; and in the translation of her journal now before us she is mentioned as a bright example of the benevolent part which the women of Russia played in the late war. Soon after her arrival at Erzeroum, one of the English physicians in the service of the Stafford House Society, attached to the Turkish army, sought from her husband a passport to leave the city, he having been recalled to Constantinople. Whereupon she observes, "This Christian entering the Turkish service during the war has given us a painful and disagreeable impression." Incidentally, it may be noticed that Madame Donkhovskoi was warned not to be too courteous to an American missionary she became acquainted with at Erzeroum, as he was undeserving. He appears to have given offence by asking from the governor a weekly subvention of money and food for distribution among the necessitous, thus implying that the distribution made by the Russian officials might be amended. Referring elsewhere to the European medical men—Norwegians, Danes, Austrians, Prussians, English—aiding the Turkish sick and wounded, our authoress observes: "What is the nation which has sent this contingent of physicians to save the Turkish cause? All this is revolting!" Obviously the catholicity of the work of the Red Cross has no place in Madame Donkhovskoi's mind. Probably she was ignorant that help was offered from this country to the Russian sick and wounded equally with the Turkish; but the want of true conception of the work of the Red Cross is not the less instructive, having regard to the great part which the Russian Red Cross Society played amongst the Russian forces in the war.

HOSPITAL SUNDAY FUND.

IT is gratifying to have our anticipations confirmed in regard to the sum of the Hospital Sunday Fund exceeding by fully a thousand pounds that of last year. The tables for the first time supplied to the members of the Council are also of considerable interest as supplying many, though not all, the materials for a sound judgment of the awards, and the system on which they are based. After the discussion of Tuesday the Distribution Committee will act wisely in considering whether the principles of distribution cannot be made more intelligible to others. When a hospital administrator like Sir Rutherford Alcock says he cannot understand the arithmetical basis, it is useless to expect the public to do so; and when it is shown to lead to such disproportionate grants as Dr. Glover alluded to, it is time to take other facts into fuller consideration, as the laws of the Fund

require. It is quite erroneous to say that the Distribution Committee is bound by the iron rule of the arithmetical basis. It was shown, in the case of dispensaries, that a dispensary paying 7000 home visits a year—the real test of good dispensary work—and having only £500 invested, managed at a cost of only 5 per cent. of its expenditure, may receive less, on the vaunted ground of arithmetical basis, than a dispensary paying only 1000 visits, with £5000 invested, and managed at a cost of 13 per cent. on its expenditure. This is something like a *reductio ad absurdum*, and the public will look anxiously for the fulfilment of Sir Sydney Waterlow's promise to Sir Rutherford Alcock to make the principles of distribution more intelligible than at present.

COLLEGIATE FINANCES.

FROM the last report of the receipts and expenditure of the Royal College of Surgeons from Midsummer-day, 1878, to Midsummer-day, 1879, and which has just been published, it appears that the former amounted to £15,133 7*s.* 9*d.*, derived principally from fees paid on admission to the membership and fellowship — viz., £11,367 10*s.*; dividends on stock and rent of chambers, £2484 19*s.* 10*d.*; trust funds, £247 7*s.* 10*d.*, more than half of which is derived from the donation of £5000 from Mr. Erasmus Wilson. Election to the fellowship, formerly a productive source of revenue, is represented by only twenty guineas. The expenditure for the same period amounted to £14,878 11*s.*, consisting of fees paid to the members of Council, Courts and Boards of Examiners—viz., £5886 2*s.*; salaries and wages for the large staff of officers and servants, for the three departments, College, Museum, and Library—viz., £3915 19*s.*; taxes, rates, and stamps, exclusive of postage stamps, £1235 2*s.* 8*d.*; the Hunterian Oration, Dinner, and other refreshments, £459 15*s.* 3*d.* The expenses for patients, bandaging, &c., in connexion with the clinical examinations for fellowship and membership are increasing, as shown by £193 16*s.* 11*d.* required for those purposes. Alterations repairs, and painting, £1069 3*s.* 5*d.* Pensions are now reduced to £54 1*s.* Taking the receipts at £15,133 7*s.* 9*d.*, and the expenditure at £14,878 11*s.*, there appears a balance in favour of the College of £254 16*s.* 9*d.* The report is signed by Mr. Timothy Holmes, as chairman of the Committee of Auditors.

DEFIBRINATED BLOOD FOR RECTAL ALIMENTATION.

AT the meeting of the Therapeutical Society of New York, held on Feb. 14th, 1879, the President, Dr. Leaming, in the chair, the Committee on Restoratives presented through its chairman, Dr. Andrew H. Smith, an exhaustive report on the subject of rectal alimentation by means of defibrinated blood. A brief preliminary report was submitted early last year, but the present is far more detailed, and embraces a large number of cases in which the method was tried. It may be useful to give the conclusions at which the committee arrived. The injections were employed in amounts varying from two to six ounces, once or twice daily, in sixty-three cases. Of these thirty-eight were cases of phthisis, of whom eight did not bear the treatment well, ten were not noticeably benefited, twenty received benefit, some of them slight, others very decided. In one case of phthisis the diarrhœa was made worse by the injections. There were nine cases of anæmia treated in this manner; of these one was not benefited, whilst the rest were greatly improved or cured. There were five cases of dyspepsia; all received benefit, some to a considerable extent, several were apparently cured. One case of dyspeptic asthma was relieved while the treatment was continued. It was employed successfully also in four cases of exhaustion. Out of three cases of neuralgia two decidedly improved under it, but one was not relieved. Two cases of gastric ulcer were treated. One died from hæmorrhage; the other, a girl aged eighteen, whom the persistent vomiting had reduced almost to a moribund condition, for which two weeks' treatment by enemata of blood and brandy did no good, was treated by injections of blood alone and small quantities of brandy and milk by the mouth, with successful issue. A case of uterine hæmorrhage was also successfully dealt with. The committee draw the following conclusions:—"1. That defibrinated blood is admirably adapted for use for rectal alimentation. 2. That in doses of two to six ounces it is usually retained without any inconvenience, and is frequently so completely absorbed that very little trace of it can be discovered in the dejections. 3. That, administered in this way once or twice a day, it produces in about one-third of the cases, for the first few days, more or less constipation of the bowels. 4. That in a small proportion of cases the constipation persists, and even becomes more decided the longer the enemata are continued. 5. That in a very small percentage of cases irritability of the bowels attends its protracted use. 6. That it is a valuable aid to the stomach whenever the latter is inadequate to a complete nutrition of the system. 7. That its use is indicated in all cases not involving the large intestine, and requiring a tonic influence which cannot readily be obtained by remedies employed in the usual way. 8. That in favourable cases it is capable of giving an impulse to nutrition which is rarely, if ever, obtained from the employment of other remedies. 9. That its use is wholly unattended with danger."

PROFESSIONAL PUFFING.

IT is a growing, if not laudable custom, when any so-called scientific invention sees the light of day, and appears to have distinctly commercial aspects, for the promoters thereof, as soon as their company is formed and has fairly acquired a local habitation as well as a name, to send round luncheon cards of cheese-plate dimensions to professional and other men interested in the matter. The guests and directors occupy usually about one short half hour (more or less) in inspecting the works, and the subsequent two hours are devoted exclusively to the pleasures of the table. When the clatter of plates and glasses has ceased, or, rather, diminished, the chairman, if he be experienced and energetic, wisely brings the post-prandial proceedings to as speedy an issue as possible. The standing toasts are disposed of, and at length the climax is reached when the president rises to propose success to the Company, whatever it may be. If the speech is cleverly framed, the doctors and analysts present are drawn into the toast, and one of their number is persuaded to get up, return thanks for himself and his compeers, and at the same time explain and extol the merits of the preparation that has been exhibited in all its varieties before feeding-time.

We confess to approaching this subject very unwillingly; but it is plainly our duty to call attention to the evils that seem to us likely to arise from this excessive though ingenious system of puffing through professional channels. Commercially speaking, we cannot doubt that the entire scheme is perfectly legitimate. A company is formed for the manufacture and sale of, say, some special fancy disinfectant. The usual preliminaries are completed, premises are engaged, and when everything is in working order, a prandial performance is organised, great care being taken that a personage, if not noble, at all events distinguished in the arena of science, arts, or letters, shall preside, and, anyhow, a ready speaker, combining logarithms with £ *s. d.*, shall be secured. But the great aim is to obtain the presence and, if possible, the co-operation of men such as those indicated above. It is a matter of regret that health officers have

lately seemed to lend themselves too much to companies and their schemes, the merits of which it is utterly impossible to have properly scrutinised. For we may be sure that when a man has given you the opportunity of sitting at his hospitable board on such occasions, he will look upon the practical acceptance of such an invitation as a material guarantee that you are at one with him in his system and that you believe in it. How subsequently can you be competent to give a completely conscientious, unbiased, and independent opinion as to such matters? Hence, while thanking commerce for its courtesy and hospitality, we feel it a duty to warn our readers against cheeseplate cards, post-prandial speeches, and professional puffing.

THE SELECT COMMITTEE.

THE Committee finished its work for the session on Tuesday last, and agreed to report. The report will consist chiefly of the evidence, and be accompanied, we believe, with the statement that the investigation by the Committee is still incomplete. It will remain with the House to determine next session whether the Committee shall be reappointed. We shall hope soon to review the work done, and the evidence taken by the Committee. Mr. Bradford, the worthy representative of the Apothecaries' Society, was expected to give evidence on Tuesday last, but begged to be excused till next year.

DAY NURSERIES FOR CHILDREN.

THE value of public nurseries for the safe custody of infants whose mothers require to labour for their daily bread does not need to be further enforced. It is only necessary to urge that the support already accorded to these institutions should be extended, and that they should be placed under careful supervision. This is one of the enterprises in which women may engage with the confidence that they are doing good service in their own proper sphere. If ladies who desire to make themselves useful would address themselves to this work, and provide *crèches* in every populous district, they would be rendering important aid to the poor. It is, of course, indispensable that all due precautions should be taken to avoid the spread of disease through agencies of the class we are advocating, and measures must be devised to prevent the obvious abuses, accidental and intentional, to which any enterprise of this nature is exposed. There should be no insuperable difficulty in providing the requisite safeguards. The assistance medical aid can render will, doubtless, be forthcoming. We again commend the subject to our professional readers, and through them to the philanthropic public, with every confidence in a movement at once wise and good.

SHORT SEA TRIPS.

THE restorative influence of a voyage across the Atlantic and back in cases of breakdown from over-work is not only a recognised fact, but is becoming more and more a favourite prescription with physicians who have to treat these cases of "chronic fatigue." But the expense of such a voyage is not within the compass of all, nor can time always be spared from business or professional avocations. We would, however, point out the facilities that exist for shorter trips attended with slight expense. It is quite possible to make the complete circuit of England and Scotland within a fortnight, and for a less sum than six pounds cabin fare. This can be done by taking the London boat for Edinburgh or Aberdeen, and catching the Shetland mail steamer for Stornoway at either place; from Stornoway to Glasgow, round Skye; from Glasgow to Dublin, and from Dublin to London, round the Land's End, touching at Plymouth and Southampton. The perpetual change of scene and interest that such a trip would include, together with the bracing sea air, would prove most wholesome and beneficial to over-strung nerves. Nor, unless the traveller was exceptionally predisposed, need he have much fear at this season of the year from sea-sickness. The steamers are large, and a very considerable part of the voyage is made under shelter of the coast, so that, unless he were particularly unfortunate in point of weather, many days would be passed in comparatively smooth water. But shorter trips, involving absence from business for only three or four days, are also to be made, as the run to Hamburg, Antwerp, or Havre. It only requires that the steamboat companies should arrange the hours of sailing to suit the general convenience of the public, and act liberally in the matter of return fares, to make these short sea trips from Friday or Saturday till the Monday extremely popular. The monopoly of the fresh sea breezes, untainted by the sewage of a large town, or the defective drains of a lodging-house, should not be left to the wealthy yatchsman, but all classes should be encouraged to avail themselves of the opportunities our insular position and well-organised packet service to our numerous ports afford for obtaining that best of all tonics, sea air on the open sea.

THE MEDICO-PYSCHOLOGICAL ASSOCIATION.

UNDER the able auspices of Dr. Lush, the President for the year, the above Association held its annual meetings this week. The chief feature of these was the address of the President on Wednesday at the Westminster Palace Hotel, and the animated discussion which ensued. Dr. Lush dwelt on the importance of the disease of insanity and of the means for restricting the liberty of the insane. He stated that the number of persons in detention had increased from 45 per cent. in 1846 to 250 per cent. in 1878. The increase is principally in the class of pauper lunatics, rising to 300 per cent. above the increase of population, whereas the increase among private patients is only 17 per cent. above that of the population. Dr. Lush vindicated private asylums from recent attacks, and maintained that there are large classes, and always will be, who will prefer them. Referring to recent schemes he said, "Not the diminution of insanity, but the licence of the lunatic is inscribed upon the revolutionary banner, and its success is fraught with danger to the State as much as any other misguided fanaticism." The true solution of the difficulties is to be sought, he thinks—(1) in increased family responsibility; (2) in educating the popular belief in the gravity of the disease; (3) in further State interference where possible; (4) in increased efforts to make the lot of insane persons under detention as little irksome as is consistent with safety and the conditions of their malady. The discussion which followed was highly honourable to the Association. Most of the representatives of private asylums expressed their willingness and even their wish to be relieved, on reasonable terms, from a position so open to criticism; but with honest indignation they repelled the insinuations of those who charged them with unduly prolonging the detention of patients.

SICKNESS OF AN ARMY IN RAILWAY TRANSIT.

ACCORDING to the Russian journal the *Voice*, during the two years 1877 and 1878, the number of soldiers transported by the Russian lines of railway amounted to not less than 2,623,483, and the sickness occurring during the transfer did not exceed 1·40 per 1000. The journal adds that the despatch of sick and wounded from the seat of war, and their transit homeward, were so perfectly effected that not a single instance occurred of communication of an infectious disease from them to the general population. The Turkish soldiers sent prisoners to Russia after the battles of Plevna, Schipka, and Avliar, and the fall of Kars, exceeded 60,000,

including many sick of contagious diseases. The escorts and attendants of the prisoners became infected with the maladies from which they suffered, and it was not until special measures were adopted in the trains by which they were transported that the danger of spread of infection from this source was controlled.

This statement does not agree with previously-published information on the subject. During the time that the movements of the sick and wounded of the Russian army and of the Turkish prisoners were in progress, typhus was present in both armies, and it was frequently stated, apparently from official sources, that the disease had been communicated by the passing sick and prisoners to many communities in Russia and Caucasia. While the chief infecting agencies were said to be the prisoners, the sick of the Russian army were said to have played a not unimportant part as disseminators of the infection.

NEWCASTLE-ON-TYNE.

THE sanitary work commenced in Newcastle-on-Tyne some six years ago has, up to the present year, borne excellent fruit, and there has been a steady diminution of the high death-rate which some years since attached to the town. Last year, however, this satisfactory progress received a slight check, and the death-rate showed an increase of 1·4 per 1000 as compared with the preceding year. This increase was shown mainly in diseases of the zymotic class. Whilst any check given to the hitherto improving returns is to be regretted, still the warning thus given must be considered salutary if it calls the attention of the authorities of the town to the necessity for further extension of sanitary measures, and for constant vigilance. The report of the medical officer of health, Dr. Henry Armstrong, shows how much still remains to be done, especially with regard to small tenement property. He also points out the necessity for applying to Parliament for powers to compel registration of all cases of infectious sickness if the zymotic class of diseases are to be successfully combated. At Huddersfield, Bolton, and Dundee legal power for this purpose has been obtained, and certainly a town like Newcastle, with its vast labouring population, ought not to be without this protection. Legislative power, too, should be sought to prevent overcrowding in Sunday schools. In one case recorded the amount of space was only three square feet to each child! Dr. Armstrong reports a case of five members of a family having shown signs of arsenical poisoning from a wall-paper, the amount of arsenic contained in a square foot of the paper being 0·73 gr. The paper was of a new and favourite pattern, consisting of fruit and leaves (dull green), apple blossoms (pink), grasses (greyish-green), birds (brown), and butterflies (blue and yellow), on a delicate bluish-grey ground. The surface of the paper was dull, and the colouring matter separated on slight friction. We have recently pointed out that the danger from arsenic colour poisoning does not arise solely from the bright-green hues, but from many other colours, and this instance is a case in point, showing that colour alone is no guarantee of safety.

THE SANITARY STATE OF CARLISLE.

ACCORDING to the local journals, the sanitary condition of Carlisle is far from satisfactory. It would appear that a considerable section of the sewers of the city is still in an unclean state and not properly ventilated. The spurt of sanitary work which followed upon the outbreak of typhus in 1874 seems to have pretty well come to an end, notwithstanding the protests of the medical officer of health, Dr. Elliot. Typhoid is showing itself along the lines of the foul and ill-ventilated sewers, but the sanitary authority moves sluggishly, if it moves at all.

THE NEW VICTORIA UNIVERSITY AND MEDICAL DEGREES.

WE are glad to hear, on what we believe to be good authority, that there is no prospect of Government conferring the power of bestowing medical degrees on the new Victoria University. If the policy of multiplying medical faculties is abandoned we have nothing to urge against the projected addition to centres of general education, except that it is probably needless.

THE *Record*, in a leading article on July 21st, very strongly advocates the centralisation of the control of the London hospitals. It is pointed out that there are at present an unnecessary number of secretaries and paid officials, who swallow up much of the money which is subscribed by the public for charitable purposes, and that a central board would be a more economical means of administering the funds. It is also urged that a central board would be able to control the distribution of hospitals throughout the metropolis, and would take care that each district was supplied according to its means.

AT the recent meeting of the governors of the Chelsea Hospital for Women, the Earl of St. Germans (the President) received at the hands of the Rev. Canon Fleming (one of the Board of Management) an anonymous donation of £1000 towards providing furniture for the new hospital. In the spirit of true charity, it is given on the express condition "that no name is mentioned," it being simply acknowledged as "From a Friend, per Rev. Canon Fleming."

DR. H. RADCLIFFE CROCKER, assistant medical officer to the Skin department of University College Hospital, and assistant physician to the East London Hospital for Children, has been appointed physician to the Skin department at University College Hospital, to fill the vacancy caused by the death of Dr. Tilbury Fox. Dr. Crocker has been devoting himself to the study and practice of dermatology for some time past.

THE *City Press* states that the will of Dr. Tilbury Fox was proved on the 16th ult. by Mrs. Sophia Campbell Fox, the widow and sole executrix, the personal estate in the United Kingdom being sworn under £18,000. The testator leaves all his real and personal estate to his wife.

THE wards of University College Hospital were closed on August 1st for six weeks; extensive improvements in the hospital will be carried out in the interval, which will result in a considerable addition to the accommodation.

MEDICAL REFORM.

MEDICAL ACT (1858) AMENDMENT BILL NO. 3.

THE Select Committee resumed its sitting on Tuesday, July 22nd.

Dr. SAMUEL HAUGHTON, M.B., said he represented the University of Dublin on the Medical Council. For fifteen years he had acted as Medical Registrar of the University, and was a member of the Council. After explaining the constitution of the medical school of the University, he said that during fifteen years they had conferred 44 licences in medicine and 539 bachelorships. The education of the students was higher than that recommended by the Medical Council. It involved two years of collegiate study, and the passing of three to five examinations in arts, whereas the Medical Council recommended only one preliminary examination in arts. About 51·5 per cent. of the students took primary registrable qualifications, and about 29 per

cent. took the higher degrees. The University had been very forward in improving medical education. They were the first in the kingdom to recognise the modern position of surgery by conferring degrees in that branch, and were still the only university conferring degrees in obstetric science. The governing body of the University was in favour of a scheme of conjoint examination that would secure uniformity in the minimum qualification. It approved of the scheme proposed by the Lord President's original Bill of this year. It was in favour of the direct representation of the profession on the Medical Council. He thought the medical schools should be represented on the Council; for in that way the knowledge of the Council would be brought up to the most recent method of teaching medical science.

In reply to Dr. Lush, the witness said he would rather not express an opinion as to the diminution in the number of the Council. In his country hawks did not pick out hawks' eyes (a laugh); no doubt that represented a very strong feeling on the part of the Council, added to the desire of letting well alone. The dentists and midwives would throw a great deal of additional work on the Council. He should have a great objection to abolishing the Medical Council altogether and making it a department of the Privy Council. He would not permit the Privy Council to interfere with the education of the University of Dublin for the world.

Mr. ERNEST HART was the next witness. He said the Medical Council should have power to prosecute offenders under the Act; at present it had not sufficient funds, all its money being expended in paying its own members. The constitution of the Council admittedly required amending, because it did not possess the confidence of the profession, and it had itself passed a resolution stating that the time had arrived when the revision of its constitution ought to be considered. The Council had always been too tender of the interests of the corporations, and when the corporations declined to carry out its recommendations, it did not take any steps to enforce them. Every body in turn had virtually defied the Council, though the Act gave it power to supervise the education given at the schools and to represent bodies to the Privy Council. The Council was a most costly body; it had received £137,000, and all it had done was to prepare a Register and a Pharmacopœia, which cost nothing, because they were sold presumably at a price to cover the outlay. The annual income was £4000, of which £2000 was paid for rent and the remainder went to pay the members, so that there were no funds for the visitation of examinations. He believed there would be no difficulty in finding eminent men in the profession to sit at the Council without payment; that would greatly improve the character and position of that body. He attached no weight to the argument that a conjoint scheme would bring medical education to a dead level, for the colleges and universities would attract students according to the value of their degrees. He considered that the teaching in Great Britain, with the single exception of the University of Edinburgh, was decidedly inferior to that on the Continent.

The Committee then adjourned.

On Friday, July 25th, Mr. ERNEST HART continued his evidence, and in answer to Mr. Arthur Mills said that memorials expressive of want of confidence in the Medical Council had been presented by three separate bodies, one having 10,000 signatures and another 5000. After pointing out numerous defects in the constitution and performances of the Council, he said the scheme proposed in Mr. Mills's Bill for diminishing the strength of the corporate element appeared to be a good compromise. It was absolutely necessary that the schools should be represented, and there must also be direct representation of the profession. There should also be a modification with regard to the Crown nominees so that they might not in future represent exclusively the cousulting part of the profession; one half of them at least ought to be general practitioners. The three most pressing points of medical reform were the questions of examination, direct representation, and amendment of the clause relating to quacks. The conjoint scheme would be, no doubt, a great advantage, but it would be hopeless to attempt to pass a Bill with that object alone.

Dr. ANDREW WOOD, *examined by the Chairman.*

After stating his position at the Edinburgh College of Surgeons and on the Medical Council, Dr. WOOD said:—I consider that the Medical Council has power to enforce their recommendations in material matters. If we made a recommendation that the different bodies should institute clinical examinations and any of the bodies refused, I have no hesitation in saying that the Medical Council would have represented that to the Privy Council. If the Council had been at issue with such a body as the College of Surgeons of England or the University of Edinburgh, of course the Privy Council would have been bound to hear the defence, and the Council must be beaten. A resolution was passed by a very small majority that it was not desirable that apprenticeship should constitute the first year of medical study. The College of Surgeons of Edinburgh had been in the habit of regarding apprenticeship as the first year, and the Council have been twitted because they did not represent the College of Surgeons to the Privy Council; but the majority was very small, and some of the majority had doubts whether it was right to represent such a powerful body, and ultimately changed their opinions. I do not think that the cause of reform has lost anything by the Council trusting to moral suasion. I am very glad that they had not very large powers, because they must have done a great deal of mischief. In such a profession as ours I think progress should be gradual, and yet should not introduce fundamental changes without giving the different bodies time for consideration. I think it was the duty of the Council to ascertain whether the courses of study adopted by the different bodies gave the proper results, and not to send out a curriculum with which all the bodies should be bound to comply. The visitations of examinations have had most excellent effect, and if one thing has given me more vexation than another it is that, in consequence of the continued agitation for medical reform for some years, those visitations have been discontinued. They were always waiting for the Medical Bill to change everything. I know also that some of the bodies would have adopted improvements, but they said, "Oh! we are going to be wiped off the face of the earth; there is going to be a conjoint scheme, and what is the use of it?" The College of Surgeons of Edinburgh has been visited, I think, three times, and most unquestionably the system of visitations ought to be resumed. They should be systematically carried out. In my opinion the fees of the members of the Council should be reduced to three guineas per day. If that were done I believe they could provide amply for the addition of six members, and also for the continued visitation of the different bodies. Up to a certain point I consider that the Medical Act and the Medical Council have been successes; at all events they have been successful so far as not to necessitate such a revolutionary measure as that which is now proposed by Her Majesty's Government. The profession now is as different as night from day when compared with what it was thirty years ago. I quite agree with what Sir James Paget said, that for every single ignorant professional man I meet with twenty who astonish me by their knowledge. We are well supplied with proficient practitioners. The progress of improvement has been in a largely increased ratio during the last ten years. When I was examined the examination lasted only about half an hour. Our first professional examination now is both written and oral, and includes anatomy, physiology, and chemistry. It may be taken at the end of the second year. The second professional examination includes medicine, materia medica, surgery, surgical anatomy, midwifery, medical jurisprudence, and clinical examinations in medicine and surgery. Our College confers fellowships on members of any College of Surgeons without examination, upon payment of a fee, but a searching inquiry is made by the Council into every application. Our examinations are much more expensive and practical than they formerly were. At present I do not think there is any body that does not examine clinically. From January 1st, 1859, to January 1st, 1879, 21 per cent. of the candidates examined for the first professional single qualification were rejected; for the first double qualification 33 per cent. were rejected; for the second single 13 per cent.; and for the second professional 27 per cent. were rejected. The number of rejections throughout the kingdom shows that if the standard were very much raised the public would not be adequately supplied with practitioners. The practitioners in the country districts in Scotland are, as a rule, excellent men. In my opiuion the run of practitioners in this country is fully up to that of any other country in the world.

The CHAIRMAN.—It has been stated that some Scotch bodies grant their licences on easier terms than bodies in other parts of the kingdom.

Dr. WOOD.—If it is stated that we do that in order to lure people and to make money, it is a base insinuation. The College of Surgeons of Edinburgh never granted its diploma without examination. A considerable number of foreigners come to Scotland for their education because the education there is very high. One of the chief reasons why we have had so many English and Irish students is that the English and Irish bodies have not combined to give double qualifications as the Scotch bodies have done. If the English had been wise in their generation they would have adopted our system of double examinations. We find that we can examine for our single diploma for fifteen guineas, and can give our double qualification for twenty guineas, owing to the economy arising from the combination of the bodies. I have no doubt the idea that Scotch examinations are easier than those in other parts of the kingdom has induced many candidates to go to Scotland, but they soon discover their mistake. I would repeal Clause 31 of the Medical Act, and insist on a double qualification before registration. I would not say that there should be no single qualifications, but they should not be registrable. If it is resolved to establish something like a Conjoint Board system, the object aimed at would be gained by allowing the universities and corporations to examine in all the subjects which they at present examine in up to a certain point, so that a man shall have his double qualification, and then the Conjoint Board may examine him clinically. The Conjoint Board would thus stamp the man as having a practical knowledge. I have calculated that that clinical examination could be conducted at an expense of about five guineas for each student. In Feb. 1870, I voted for a resolution approving of Conjoint Boards. It was an abstract resolution, and the Scotch bodies were at first in favour of it; but only for a very short time. We set to work to see how we could carry it into effect, and, in fact, four schemes were drafted; but the Universities of Edinburgh and Glasgow would not agree to the scheme we drew up. The University of Aberdeen intimated that they would not stand in the way of the scheme, but would prefer a more complete and comprehensive one. The final result of the efforts was that the Branch Council "thought it convenient at present to desist from all attempts to form a conjoint scheme in Scotland." If the Duke of Richmond's Bill or Lord Ripon's Bill had been carried and we in Scotland had been called upon to form a scheme on the lines of the English scheme, I think the probability is that we would not have been able to do so. Then the Medical Council would have been required to do it, and I can hardly see how they could do it when we failed. The feeling of the bodies in Scotland is unanimously opposed to Conjoint Boards. All the corporations and universities are opposed to it. The uniportal examinations would be quite impracticable, because of the number of persons to be examined. The Board would necessarily have to be divided into a number of committees, and then what becomes of the one portal? The fact is, the portals would then probably be as numerous as at present. I think a variety of examinations is not a bad thing, because if you have the same sort of questions put again and again the grinders get hold of them. If the Conjoint Board system were established I think the tendency would be to level down the examinations at Edinburgh University; but I do not think my corporation would lose anything pecuniarily. If we are merely to endorse the examination of a new body of which we are only a fragmentary portion, we feel that we should be nothing better than a club.

The CHAIRMAN.—Are you satisfied with the present constitution of the Council?

Dr. WOOD.—I am satisfied that they do their duty much better than some witnesses have stated. They are no more delegates of the corporations than members of Parliament are delegates of the constituencies which elect them. I was never told by my college what I was to do, and I would not have been a member of the Council if I had been. I consider myself an independent member of the Council. In the year 1868 I myself mooted the question of direct representation—in fact, from the commencement of the Council I have felt that one fault in its constitution was that there was not a sufficient infusion of family practitioners. Under direct representation I have no doubt that gentlemen who stood very high in the profession would be elected; but what is required is a greater number of general practitioners instead of consultees. I think the profession would be more likely to elect general practitioners than consulting practitioners, and that more confidence would then be placed in the Medical Council. I think four direct representatives would be enough, but I am afraid that the system of popular voting would occasion a considerable amount of turmoil, though, of course, it might be a healthy turmoil. As the chairman of the Business Committee for twenty years, I think the addition of four or six members to the Council would be an improvement, especially if they were general practitioners. If the fee were reduced to three guineas, there would be ample funds to meet the expense. If we had twenty-eight or thirty members, we might to a larger extent adopt the plan of dividing the Council into committees, giving to each committee a separate subject. Those committees could prepare definite reports, and I think by that means the time occupied by the sittings would be diminished.

By Mr. MITCHELL HENRY.

I think you could not at present take the standard of the University of Edinburgh as the general standard for the country. The English bodies appear not to have perfect confidence in their own conjoint scheme, because by one of the clauses any particular body may withdraw at the end of five years if it pleases. The College of Surgeons of Edinburgh, I think, confers fifteen or sixteen fellowships yearly on an average without examination, but they must have a qualification in surgery.

By Mr. WHEELHOUSE.

The great mass of the recommendations of the Medical Council have been loyally carried out by the several bodies. I originally thought I was in favour of the conjoint scheme, but I did not understand it. I think the great number of rejections of candidates arises more from defects in the men themselves than in the teaching bodies.

By Mr. ERRINGTON.

Sir Robert Christison was also favourably inclined to the conjoint scheme at first, but he also changed his view. If the result of this inquiry were to leave things entirely as they are at present, I should consider that a much less misfortune than to have the conjoint scheme passed.

The Committee then adjourned.

The Committee were expected to assemble at 12 o'clock on Tuesday last, but it was close upon the half hour before a quorum was made. The chairman, the Right Hon. W. E. Forster, then announced that no more witnesses would be called, and that the Committee would proceed to consider their report.

It was understood at the previous meeting on Friday, July 25th, that a representative of the Apothecaries' Society would give evidence before the conclusion of the inquiry.

Correspondence.

"Audi alteram partem."

OWENS COLLEGE MEDICAL SCHOOL.

To the Editor of THE LANCET.

SIR,—The publication of the annual returns of the Royal College of Surgeons, showing the results of the examinations held during the last year, having attracted great attention, and having been quoted with the object of proving that the medical department of Owens College is inefficient as contrasted with other medical schools, I venture to address you the following remarks, which will, I trust, fully clear the institution with which I am connected from the injurious imputation, and call attention to a system which I believe to be as undignified as it is unjust.

I think it might have been foreseen that the system inaugurated many years ago by the Royal College of Surgeons, of publishing annually the total number of students sent up by each school, with the number of candidates rejected and passed, would be open to serious objections, and would utterly fail as a test of the comparative teaching efficiency of the medical schools.

The pressure of competition amongst the numerous medical schools of England led to the establishment of so-called *test* examinations, to which all students are subjected, and at

which they are expected to acquit themselves satisfactorily before having the schedules signed, which are a necessary condition to admission to the examinations of the College. Theoretically these examinations may perhaps be defensible, as enabling the medical schools to advise students with precision as to the expediency of going up for an examination, or the reverse. In practice, however, they usually lead to those who fail being more or less peremptorily refused certificates to which they have acquired a legal title. With the growing stringency and efficiency of the examinations of the Royal College of Surgeons the test examinations have grown in stringency also. The returns of the Royal College of Surgeons afford, indeed, a means of judging of the comparative efficiency of these test examinations, but little more.

After mature consideration, the authorities of Owens College arrived at the conclusion that this system, which, it is to be noted, is only adopted in the case of candidates for the examinations of the Royal College of Surgeons, is utterly indefensible. If a student has attended the requisite courses of instruction with diligence and regularity, and has thereby acquired a legal right to a certificate, it appears in the highest degree harsh, indeed unjust, to refuse him permission to present himself for examination on the ground that by his failure he may injuriously affect the returns relating to his school. Holding this opinion, Owens College has abandoned test examinations. We profess to teach our students to the best of our ability; we require that they shall attend our courses of instruction with regularity, and if they ask us our advice we willingly advise them (and I believe as a rule with accuracy) as to the expediency of presenting themselves or not for any particular examination; but we do not condescend to a system which is unjust to the student and distasteful to the teacher, who takes upon himself the invidious task of deciding an issue which ought to be left to the decision of the examining boards.

That my statement is correct as to the returns of the Royal College of Surgeons being returns which exhibit the comparative efficiency of the test examinations conducted at the different medical schools, rather than the comparative efficiency of medical schools, may be proved by citing our own case. In the years during which my colleague, Dr. Watson, and I conducted test examinations, which were imposed upon all candidates for the primary examinations of the College, our schools stood among the highest in the returns of the Royal College of Surgeons. Now that the test examinations have been abandoned by us, we share with University College the lowest position in the same returns. In the list just published the percentage of the rejections in the case of the Birmingham school amounts to 15·7 per cent.; in part of Bartholomew's to 30·3 per cent.; in that of University College to 48·5 per cent. Are we to conclude, however, from these numbers that of all the schools in the country, that of Birmingham, with its low percentage of failures, is the most efficient; that St. Bartholomew's, with a proportion of failures nearly double that of Birmingham, possesses only half the efficiency; and that University College and Owens College stand lowest in the list? The statistics of the College of Surgeons have been used as arguments to show the inexpediency or injustice of granting to the proposed "Victoria University" the privilege of conferring medical degrees; and the question has been asked more or less directly, "Upon what grounds does Owens College seek a privilege which is not generally possessed by the medical schools of England?"

The answer which is to be given is the following: The Medical department of Owens College forms part of a great institution, which has for many years past discharged the most important functions of a university for the district of England in which it is situated—of an institution which has numbered and numbers amongst its professors men who have contributed very largely to the advancement of science and letters—an institution in which there actually exist the means of pursuing a complete education in arts and sciences as well as medicine, and in which a Legal department of considerable efficiency exists. The position of Owens College as a teaching institution is, indeed, exactly comparable to that of one of the Scottish universities or to that of University College or King's College, London. Had it not been proposed to confer a charter upon a new university which is to include Owens College to any other colleges which come up to a certain standard of teaching efficiency and completeness, there would never have been a desire to acquire powers which would give to the Medical department of Owens College the advantage which appears to have caused so much apprehension on the part of our colleagues in the Liverpool school (to whom the whole present agitation against us is to be referred). As, however, the medical element constitutes an important place in the one college which has given a *raison d'être* for a new university, we may be pardoned if we object to a charter which would constitute us a university without a faculty of medicine.

No one is more aware than I am of the bad influence which has been exerted upon medical education by the competition which has existed amongst certain of the medical licensing boards of the country, and no one wishes more ardently than I do for a legislative measure which shall place some control upon certain of these bodies. At the same time I am strongly of opinion that the universities of Scotland, though certain of them may have been in the past, may actually be at present, too lax in the granting of their degrees, have been amongst the most efficient of the medical schools of the country, and have conferred equal benefits upon the medical profession and upon the country at large. Had it not been for their appreciation of the intimate relations of the sciences to medicine, can we doubt that the position of medicine in this country would have been altogether different from that which it occupies to-day?

The promoters of the "Victoria University" seek to confer not only upon Owens College, but upon any other similarly constituted institution, the means of developing a system of education which shall not be less efficient or less complete than that of the highest of the Scotch universities.

I remain, Sir, your obedient servant,

ARTHUR GAMGEE, M.D., F.R.S.,
Dean of the Medical School, Owens College, Manchester.

July 28th, 1879.

To the Editor of THE LANCET.

SIR,—Referring to the observations in your last issue, entitled "The proposed Victoria University and the M.D.," I beg leave to be allowed to make the following remarks.

You correctly state that at the primary examinations the average percentage of rejections of all students for the year 1878–79 was 32, whilst that of the Manchester school was 48; and that at the pass examinations, the general average rejections being also 32, the failures from our school were at the rate of 53 per cent. Although the above statement appears very damaging to the reputation of our school, it entirely ceases to be so when the true facts of the case are known. The Council and Senate of Owens College have recently decided, after much careful deliberation, that it is expedient to abolish all compulsory test examinations in the medical school for students about to present themselves at the Royal College of Surgeons. The reasons for this decision were twofold. In the first place the students often legally asserted their right to demand the needful certificates of attendance on lectures and hospital practice, and then proceeded to London without submitting to any previous test, or having done so, and having been found wanting, still persisted in going up. Secondly, it is the unanimous opinion of our teaching staff, that by not insisting upon compulsory tests the students will feel more deeply than they have hitherto done the need for continuous individual effort from the first day they enter the school, and not leave to the very last an amount of work which can only be accomplished by a system of superficial cramming.

To prove that our school, under the compulsory test examination system, did hold its own amongst those by whom the same system is still adopted, I need merely refer to the printed returns of former years. Thus, for example, in the primary examinations of 1874–5, the lowest number of rejections from all the schools, metropolitan and provincial, was that at Guy's—viz., 15·3. Our school stood second on the list with 16·4 per cent. In the pass-list for the same year Manchester stood first on the list with 10·7 rejections, as against University College with 10·8, and Guy's with 23·7. Other years, up to the time of the abolition of our compulsory test, show similarly favourable results.

As regards your argument, that in the face of such statistics as those you quoted it could not be seriously urged that the Owens College, as a part of the Victoria University, should aspire to grant degrees in medicine, I think I have

said enough to show that if all the medical schools would abolish compulsory tests, the results of our mode of teaching would compare favourably with any other school in the country, and entitle us to rank as the nucleus of a medical faculty in a university.

I will not now discuss the question whether it is possible at the present day to establish a new university in England which should ignore the claims of such an important academic study as medicine. I will only say that until the one-portal system of licensing to practise—a system which we shall all welcome—has been established, we simply ask for equal rights with other universities in this direction.

I am, Sir, your obedient servant,

EDWARD LUND, F.R.C.S.,
Manchester, July 26th, 1879. Prof. of Surgery in the Owens College.

*** We shall revert to one phase of this question in an early number.—ED. L.

SALICIN AND SALICYLIC ACID.

To the Editor of THE LANCET.

SIR,—Dr. Senator[1] has misunderstood my position, and I am glad that he has given me the opportunity to explain this more fully.

I was quite aware that the idea that salicin is converted into salicylic acid did not originate with him, and ought, perhaps, to have said so. But the point to which I wished to direct attention was not the chemical aspect of th question so much as the therapeutic, not whether or not salicin may be converted into salicylic acid, *but whether or not it owes its anti-rheumatic effects* to such conversion. Dr. Senator asserts that it does. That is the position with which his name is associated, and that is the position against which my remarks were directed.

The chemistry of the salicyl compounds is far from being thoroughly understood. There are altogether some thirty or forty of them. Regarding the nature of the changes which they undergo *out* of the system, we have really very little definite and reliable knowledge. Under these circumstances it seems to me rash to decide so unhesitatingly as Dr. Senator has done on the nature of the changes which any one of them undergoes *in* the system. It is very difficult to say exactly what change any drug undergoes in its passage through the system. It is still more so in the case of one having such complex relationships as salicin.

But the chief question is the therapeutic one. Does salicin owe its anti-rheumatic effect to its conversion into salicylic acid? The discussion of this point presupposes the admission that it may be so converted, and, for argument's sake, I will grant that it is so. The question immediately arises, Where does this change take place? Is it in the digestive organs? Is it in the circulation? Does it take place all over the body, or is it only in the eliminating organs? If in the digestive organs, the whole would be taken at once into the system as salicylic acid, and no difference would be noted between the effects of the two drugs. It cannot well be there. If in the circulation, the same thing would happen; the mass of the blood would be adequate to change thirty grains of salicin into salicylic acid as quickly as ten. It is not likely there. If in the tissues generally, its conversion would be equally rapid. There is nothing to prevent them converting at once into salicylic acid any quantity of salicin which is ever administered; it is evidently not there that the slow and gradual conversion of salicin into salicylic acid takes place. There remain only the eliminating organs. There its conversion might possibly be slow, and even partial; but, as I remarked in the paper which Dr. Senator criticises, *the salicin has exercised its full therapeutic effect before it has reached the stage of elimination*, and before it has undergone the changes which immediately precede it.

There is no *à priori* reason why the conversion of salicin into salicylic acid should be slow and gradual, unless the change take place in the eliminating organs after its therapeutic effects have been produced. If salicin is converted into salicylic acid before its anti-rheumatic effects have been produced, such conversion is more likely to be rapid than slow, and Dr. Senator has himself given as an instance of the *rapidity* of its conversion the fact that from fifteen to twenty minutes after taking thirty grains of salicin his urine gave a marked blue reaction with perchloride of iron. Here I would stay to remark that other salicyl compounds besides salicylic and salicyluric acids give the same reaction. It is therefore no proof that either of these exists in the urine. In my experience, a pretty large one, salicin acts as rapidly as salicylic acid, which it would not do if it owed its action to its slow conversion into that acid. The cases in which I prefer salicylate of soda are those in which the administration of an alkali is indicated, as it generally is in those who have suffered frequently.

Slow conversion means, not that the chemical change is long in taking place, but that, as Dr. Senator says, "only a part of the salicin is converted into salicylic acid." But if that were the case, fifteen grains should be as efficacious a dose as thirty. If, when fifteen grains are given, only twelve are in a given time converted into salicylic acid, no more than twelve would in the same time be so converted if we were to give thirty, and twelve grains would be as efficacious a dose as thirty. But that is in direct opposition to clinical experience. It is a fact that thirty grains of salicin every hour cure a case of acute rheumatism more quickly than thirty grains every two hours; showing that within two hours (if Dr. Senator's view is correct) more than thirty, and probably sixty, grains have been converted into salicylic acid. That is not slow and gradual conversion.

Yet one more fact. In some cases salicylic acid produces great disturbance of the nervous centres, as indicated by depression and delirium, often great and alarming. While the patient is suffering from these symptoms—while he is still under the influence of the salicylic acid—salicin may be given freely, and under (though, of course, not in consequence of) its use, the alarming symptoms disappear. While depressed or delirious from salicylic acid, a man may take from twenty to thirty grains of salicin every hour with nothing but benefit. That the salicin is taken in sufficient dose is proved by its rapidly curing the rheumatism; that it does not owe its action to its conversion into salicylic acid is evidenced by the coincident disappearance of the symptoms due to that drug.

Dr. Senator's reference to the different effects of small and large doses of quinine is beside the mark. There is no question of quinine owing its therapeutic effects to its conversion into any other agency. If he only meant to say that drugs act differently in different doses, there was no occasion to say it at all, for that is generally acknowledged.

In his concluding paragraph Dr. Senator points out what he calls "a fatal error, and a contradiction in my deductions." If he will read these paragraphs again he will see that the error is his rather than mine. His error consists in treating as my deliberate opinion what I refer to as a mere hypothesis. It is quite possible that both salicin and salicylic acid may be converted into, and eliminated as, some third substance, and there is some evidence to show that both are eliminated as salicyluric acid; but when I say that I still confine myself to hypothesis, and do not give it as my opinion that such is the case. But even if I held that view I should not be a convert to Senator's opinion, that salicin owes its anti-rheumatic effect to its being converted into salicylic acid in the system. Granting that such conversion does take place, the therapeutic evidence all favours the view that it occurs only *after the salicin has exercised its full anti-rheumatic action*.

On one other point I would again insist. We must draw a distinction between the action of the salicyl compounds on the rheumatic poison, and their action on the system. In my original paper on salicin (LANCET, March, 1876) I explained that I was led to use the drug because I regarded the rheumatic poison as a miasm introduced into the system from without, and which was likely to be destroyed by such an agent as salicin. The employment of salicin in acute rheumatism was not a haphazard experiment, but a legitimate deduction from the views which I held regarding the causation of acute rheumatism. The success of the practice is evidence in favour of the theory on which it is founded. The rheumatic poison I believe to be a miasm. There is no reason why the different salicyl compounds should not all exercise the same destructive effect on this miasm, and yet have different effects on the system. *A priori* this is quite possible. What evidence we have supports the view that it is so.

I hope I have made my position clear to Professor Senator.

[1] THE LANCET, July 19th.

If I have, he will see that my knowledge, though imperfect enough, is not so imperfect as he thought; and that my deductions, though possibly erroneous, are not contradictory.

The whole question is too young for anything like dogmatic assertion. I do not say that my views are correct. I give my facts, and I give my interpretation of these facts. Probably many years will elapse, and many others, more competent, share the work, before either the chemistry or the therapeutic effects of the salicyl compounds are properly understood. That many of these compounds, besides salicin and salicylic acid, will be found useful, I entertain no doubt.

Your obedient servant,

T. J. MACLAGAN, M.D.

Cadogan-place, Belgrave-square, July 21.

THE MURCHISON MEMORIAL.

To the Editor of THE LANCET.

SIR,—Allow me to call your attention to a circular which is now being largely distributed, asking for subscriptions in aid of this memorial. It has been resolved that this shall take the form of a scholarship in clinical medicine, to be competed for alternately in London and Edinburgh.

"It is intended," I quote the circular, "that the scholarship shall be *open to students of all the London medical schools*, and that the Royal College of Physicians shall, if practicable, conduct the award of it in London. In Edinburgh the scholarship will be administered by the medical faculty of the university, and be *open to all its medical undergraduates*."

It is to this last clause that I desire to draw your particular attention. You will observe that the scholarship, when competed for in Edinburgh, is to be reserved entirely for *university students*. The students of the Edinburgh School of Medicine are not only ignored, but deliberately excluded from participation in the competition; while in London the scholarship is to be open to students of *all* the medical schools.

The manifest injustice of this scheme led me at once to commit the circular to the waste-basket, and to resolve to have nothing whatever to do with it. But on reflection, and in justice to the students of the Extra-Academical School of Edinburgh, I think it right to address you on the subject, and on behalf of the teachers in that school to enter a protest against the narrow-minded exclusiveness which suggested the proposed scheme, so contrary to the feelings and actions of him whose memory it is desired to honour.

I can hardly allow myself to believe that this scheme can be in accordance with the wishes of the teachers of clinical medicine in the university, and that it is not a mere inadvertence on the part of the promoters of the memorial. But it is scarcely fair that for this reason the admirers of Murchison connected with the Extra-Academical School of Medicine in Edinburgh, and many others, should be debarred from testifying their regard to Murchison by offering their mite to the formation of the memorial. For this, of course, must be the inevitable result should the plan, as now propounded, be carried out.

If this, then, be the real state of the case, and not the deliberate and final decision of the Edinburgh committee (who, it may be noted, with two exceptions, are all professors of the medical faculty), then the matter can very easily be rectified. Let the present circular be recalled. Let a new one be issued with the required amendment—viz., that the scholarship shall be open to all medical students at the University of Edinburgh and the Edinburgh School of Medicine, and that the competition in Edinburgh shall be conducted by the professors of clinical medicine in the university, conjointly with the lecturers on clinical medicine in the Edinburgh School of Medicine.

I have been induced to trouble you with these suggestions because when the secretary to the memorial in Edinburgh had the matter brought before him, his reply was that he was afraid that it was now too late to have any alteration made in the plan. Perhaps when laid before the London committee in this public way something may yet be done. Let this be my excuse for encroaching so much upon your valuable space.

I am, Sir, your obedient servant,

CLAUDE MUIRHEAD,
Physician to the Royal Infirmary.

Edinburgh, July 29th, 1879.

HOUSEHOLD VENTILATION.

To the Editor of THE LANCET.

SIR,—The influence which household ventilation must exert upon the health of a population, the slighting care and little attention which it habitually receives, have led me to write the following lines, in the hope that you may think them worthy of notice.

Cold is ventilation's greatest enemy; and in our climate it is no easy matter to ventilate dwellings without lowering their temperature to an extent incompatible with comfort. We have in the English fireplace a compromise between a ventilator and a heat-producer; but the compromise is, as far at least as the production of heat is concerned, a poor one, for fresh air enters the room cold, and in large proportion leaves by the chimney as soon as properly warmed. Efforts are, on this account, frequently made to prevent the ingress of pure cold air, and in default stale atmospheres, and not uncommonly sewer gas, substitute themselves.

I propose to alter this. Since the exit of air by the chimney necessitates the entry of an equal volume through other channels, I would ensure its quality by running a pipe of large diameter from the external air itself. I would warm it upon its very entrance by carrying the pipe to the back of the fireplace, expanding it there in order to increase its heat-receiving surface, passing it thence again into the room, and guarding its orifice by a tap labeled "hot." A similar pipe, communicating directly with the external atmosphere, may be made to open at the same spot, and a tap labelled "cold" affixed to its extremity. With such an apparatus we could regulate the temperature of our rooms in much the same way as the hairdresser does that of the water with which he bathes our heads; always supposing that the window fittings are tolerably close and well made; cold draughts would be avoided, and a constant supply of fresh air at the same time guaranteed.

And the plan is capable of further development. A branch from the hot-air pipe may be carried to the bedroom overhead, tapped as before. At night, upon retiring to rest, the hot air may be turned off from the sitting-room, where it is no longer needed, the bedroom tap may be opened, when a volume of pure warm air will ascend into that apartment—a method of heating surely preferable to that now in vogue, of warming bedrooms by burning gas in them for some hours before bedtime.

Yours truly,

Clevedon, Somerset, July 16th, 1879. GEORGE BUDD.

THE ARMY MEDICAL SERVICE.

To the Editor of THE LANCET.

SIR,—I trust that your warning will not go unheeded, and that no candidates will present themselves at the examination advertised for next month; at all events, until the provisions of the new Warrant are clearly before them. I can assure them that no dependence can be placed on the promises of the War Department with reference to the Medical Service; for the rules and regulations appended to a Royal Warrant by the Secretary of State for War are of such a nature as to nullify the provisions of the Warrant, and are often read in such a way by the authorities that you find yourself deceived, totally unable to discover what you are entitled to, and called upon to perform duties outside your own department, such as Admiralty and militia work, without fee or reward. I therefore say, from many years' experience, wait and see the terms of the new Warrant, but, above all, the War Office regulations thereon.

I am, Sir, your obedient servant,

FRED. GOODCHILD, M.D.,
July 27th, 1879. Surg.-Major, M.M.D. (retired).

PARIS.

(From our own Correspondent.)

TO judge from the lists of visitors published by the Anglo-American papers, nearly every other adult male who comes to Paris at this time of the year rejoices in the title of "Dr." Allowing that three-fourths of these are Transatlantic graduates either in dentistry or chiropody, or in some other

equally abstruse art and mystery, there must still be many medical men properly so called, to whom some information as to how, when, and where to go will prove acceptable. Englishmen often grumble at the difficulty they experience in obtaining admittance to the hospitals and other places of medical interest in Paris. This complaint is not entirely devoid of reason. The French *concierge* forms part of a complicated organisation, and is fully conscious of the importance of his functions. He looks upon every request made out of regulation hours to visit the institution which he adorns as an irregular and unjustifiable proceeding, and to accede to which would endanger the very existence of the administration. But if impediments are often thrown in the way of casual visitors by the rules of the hospitals, rejected applicants have frequently no one to blame but themselves for their disappointment. It is related of a well-known London practitioner that upon being stopped at the entrance by the wicket-keeper of the Hôtel Dieu, he scandalised that official by claiming a prescriptive right of passage, on the score of being a *physicien*. Had this gentleman consulted "Bellow's Bonâ-fide Pocket Dictionary," he would have learnt that this is the French equivalent for "natural philosopher," and had he, moreover, known that natural philosophy is understood by the lower classes to be the science of extracting borrowed watches from hard-boiled eggs, and of causing burnt pocket-handkerchiefs to issue phœnix-like from the innermost recesses of quartern loaves, further philological research might have furnished him with a more effective password.

The proper time to visit the hospitals is from 8 o'clock until 9 in the morning, at which hour the different physicians and surgeons generally arrive in their wards. Those who have no special reason for going elsewhere will do well to select one of the great teaching centres—the Hôtel Dieu, the Charité, the Lariboisière, or St. Louis, which are all easily accessible from the English quarter. At some of the others a special permission to accompany the visit must be obtained from the director, and although this is generally granted without difficulty to a properly qualified applicant, it occasionally provokes so much official fussiness and preliminary formality, that a diffident visitor would retire in dismay. St. Louis is surrounded on all sides by manufactories, and is consequently one of the best fields for surgery in the capital, but it is chiefly renowned for its clinique for the treatment of diseases of the skin. It also possesses a collection of models in wax of cutaneous affections which will repay the trouble of a visit, even to those who do not make this subject a specialty. The Hôtel Dieu and the Lariboisière are well known as model buildings, and in each of these equal attention is devoted to medicine and surgery. The former has also a special ophthalmological department in connexion with the professorship at the Faculty of Medicine.

Paris is undoubtedly one of the best places in the world for the study of that Protean malady, hysteria; and go where he may, an Englishman is sure to see it in some form which he knows only by hearsay. Two years ago the "Charité" could display a fasting-girl, who could have held her own against many of the female saints of the middle ages, and who thrived on the same diet as proved fatal to her Welsh sister. Now M. Dujardin-Beaumetz has discovered a "femme lithographique," in whom the slightest contact gives rise to an urticarious eruption. Upon tracing his name upon her thigh the letters immediately appear in red relief, and this is accompanied by a local rise of from 1° to 2° in the temperature. There is complete anæsthesia of the whole body. Those who have studied the occult sciences know that this last symptom used to be a mark of demoniacal possession, and it will be remembered that the mother superior of the bewitched convent of Loudon could produce on her arms the raised names of the devils who infested her body. A few years ago the spiritualists of Toronto used to communicate with their departed friends by the same means, through the arm of a servant-girl of that city. It will be well, therefore, to weigh thoroughly the claims of the supernatural before giving a scientific explanation of this phenomenon, and it would perhaps be better to look upon the "femme lithographique" as an embryonic St. Catherine, rather than to run the risk of being considered an atheist for explaining away stigmatisation by a theory of periodic urticaria.

In spite of the "arbitrary scepticism" of the large majority of the profession, the most satisfactory results are daily obtained in the hospitals by the external application of metals. Symptoms of the most curious nature develop under their influence, and give rise to the most interesting discussions at the medical societies, and if the patients were benefited by their use nothing would be wanting to complete the value of this treatment. Those who look upon hospitals as institutions for relieving the sick, not unnaturally point out the failure of metallic plates in the cure of disease, and underrate the importance of experimental medicine to a rising generation of physicians. Those, on the contrary, who consider medicine as a branch of physiology, hold the individual cheaply enough where the interests of science are concerned, and use metallo-therapy as a means whereby "to study and search out the secrets of nature by way of experiments."

INDIA.

(*From an occasional Correspondent.*)

FROM the 1st of April, 1879, the Indian Medical Service entered upon a new phase of its existence, and the long talked-of scheme for the separation of military from civil medical duties was introduced. Last year Dr. Irvine had been appointed Deputy Surgeon-General with the Government of Bengal shortly after the committee appointed by the Lieutenant-Governor had reported upon the scandalous abuses which existed in the management of the Calcutta medical charities. Dr. R. Christison has now been appointed Deputy Surgeon-General with the Government of the North-West Provinces, and Dr. Cannon Deputy Surgeon-General with the Government of the Punjab.

In the official Resolution (No. 640 of 1879) of the Government of the North-West Provinces, the duties of Dr. Christison are defined: (*a*) "He will arrange for transfers and postings of all civil medical *employés* under the rank of assistant-surgeon"—i.e., of all apothecaries, hospital assistants, and native doctors in civil employ; (*b*) "he will be competent to pass orders on applications for leave by such *employés*;" (*c*) "applications for leave by civil and assistant surgeons will be submitted through the magistrate of the district to Dr. Christison, who will forward them with his recommendations to the local Government; (*d*) Dr. Christison is *ex-officio* visitor of all gaols in the North-West Provinces and Oude.

It will be seen that Dr. Christison has nothing whatever to do with the appointment of civil surgeons. He has not even a right to be consulted as to the services, merits, or qualifications of any candidate for a civil surgeoncy. All appointments will now lie entirely with the Lieutenant-Governor, aided by his secretary. Heretofore Dr. W. Walker, the inspector of gaols and hospitals, was consulted before an appointment was made, and his recommendation had great weight.

Of what influence is the "head of the Civil Medical Department" possessed when civil surgeons know that their own professional superior has no voice in their promotion, and that he is powerless alike to reward or to punish professional incompetency or merit? On the other hand, is it worth while paying a deputy surgeon-general 1800 rupees per month in order that he may superintend the postings of 170 subordinates whose pay ranges from 10 to 60 rupees per month? If a non-professional private secretary is qualified to select civil surgeons, surely he is also fitted to fill up the minor appointments. In no other department of the State is the power of appointing his subordinates taken from the head of the department, and this monstrous slight cast on the Indian Medical Service is but a harbinger of what too many of its members have foretold would follow any attempt to separate the military and civil branches. In future each petty provincial government will have its small body of civil surgeons at the beck and call of a private secretary, whose interest will be sufficient to make or to mar a surgeon for life. If a man should be so unfortunate as not to give satisfaction, he will no longer, as now, be able to go elsewhere, or to revert to military duties.

The days of the fine old Indian Medical Service are, I fear, numbered. Dr. Irvine has already resigned his appointment in Bengal, disgusted with his anomalous position. Twice he

recommended a surgeon for an appointment; both his letters were passed by unnoticed, and a stranger received the post. Dr. A. J. Payne has now been appointed by Sir A. Eden to succeed Dr. Irvine, and the appointment has caused a great outcry throughout the profession in India. Dr. Payne, whose high professional reputation is well known, refused promotion to D. S. G. two years ago, because he would have lost largely, in a pecuniary point of view, by taking preferment. He was, therefore, passed over, and Dr. Hutchinson promoted in his stead. It has hitherto been the rule that when an officer refuses promotion he must abide by his decision, or, should he accept preferment, that he must vacate his appointment. In Dr. Payne's case, however, he has been permitted to retain his appointments while accepting the promotion which he had previously declined. Dr. Simpson will thus be thrown back at least a year in his promotion, and a most dangerous precedent will exist for promoting other officers who may have the interest without the professional merit of Dr. Payne.

THE MURCHISON MEMORIAL.

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PARLIAMENTARY PROCEEDINGS.

HOUSE OF COMMONS.

Friday, July 25th.

PAUPER NURSES.

Mr. RATHBONE asked the President of the Local Government Board whether his attention had been called to an inquest held by Dr. Hardwicke on the 27th of June, at Clerkenwell, on the body of a child found dead in Farringdon-road workhouse, who had been placed under the care of a deaf pauper nurse, and whether he could take steps to prevent paupers being placed in situations of trust and responsibility where want of skill or care must frequently result in permanent injury or death.

Mr. SCLATER-BOOTH.—My attention has been drawn to this case and application was made by my directions to the coroner several days ago for the depositions, which I only received this morning. I have also caused one of the inspectors for the metropolis to make inquiry into the matter. It is true that this child was placed, with some others, in a ward which was left at night in charge of a pauper nurse who is rather deaf, although during the day the ward is in charge of a paid and responsible nurse. It is obvious that this was an improper proceeding, and steps will be taken to prevent its recurrence. Constant efforts are being made by me to insure that all offices of trust and responsibility in workhouses shall be filled up by paid officers and assistants, and in the new infirmaries I have succeeded in abolishing pauper help almost entirely.

Wednesday, July 30th.

VACCINATION PROSECUTIONS.

In reply to Mr. Serjeant Simon,

Mr. SCLATER-BOOTH said,—I am aware that proceedings have been taken lately against a large number of persons in the Dewsbury union for neglecting to cause their children to be vaccinated, and I fear they may have been encouraged in that course by those who are entrusted with the administration of the law. Preceedings are taken under three heads—1st, for a penalty for neglect to have the child vaccinated; 2nd, there may be a summons to show cause why an order should not be made for the vaccination; and, 3rd, there may be a summons for a penalty for non-compliance with the order. The vaccination officer has written to me, stating that in no single instance has he taken proceedings under the third head against a defaulter previously convicted under the first. That being so, his conduct has not been contrary to the instructions of the Local Government Board, nor to the spirit of the letter to the Evesham guardians. No doubt it is contrary to the resolution of the Dewsbury guardians; but that resolution, as they have been informed, is illegal, and, in fact, a nullity. There seems to me no ground for putting an end to the system of payment of the vaccination officer by fees, which has been generally adopted and works well; nor is it found to encourage prosecutions. The fees are not regulated by the number of prosecutions, but by the number of cases of successful vaccination.

Obituary.

MR. CLEMENT WILLIAMS.

INFORMATION has been received of the death of Mr. Clement Williams by typhoid fever on June 26th at the villa of the Marquis della Stafa, near Florence. Mr. Williams received his professional education at Guy's. He passed the first examination for M.B. at London University with honours, and gained the gold medal for chemistry. In 1854 he obtained the diploma of the Royal College of Surgeons. In January, 1855, he joined the army as an acting assistant-surgeon, in the hope of seeing active service in the Crimea, and in July of the same year was gazetted assistant-surgeon. He was disappointed in his hopes of active service, having been sent to Corfu instead of the Crimea. In 1857 he was appointed assistant-surgeon of the 68th Regt., and went out with it to India. On his arrival in that country he set to work zealously to acquire a knowledge of the Eastern languages. He soon became well acquainted with the colloquial and written languages of Burmah, and with the history, institutions, and resources of that country, and the character and policy of its court. On account of these important qualifications he was appointed at first correspondent at the Court of Burmah, and subsequently, in May, 1863, agent to the chief Commissioner of British Burmah at Mandalay. From this appointment he was removed in 1864 in consequence of a decision of the Secretary of State for War that medical officers were not to be employed in situations unconnected with their profession. An application by Mr. Williams to be allowed to resign his commission in the Medical Department and to be transferred to the uncovenanted service under the Government of India was refused, although very strongly supported by Colonel Phayre, the British Commissioner at Mandalay. On his enforced retirement from the post for which he was so well qualified Mr. Williams received, by direction of his Excellency the Viceroy and Governor-General in Council, "the thanks of Government for the services rendered by him during the period of his incumbency."

On his return to England, finding that he had no chance of being employed in that line for which he felt himself specially qualified, and being unwilling to resume the ordinary routine of service in the Medical Department, Mr. Williams resigned his commission and returned to Mandalay in a private capacity, where he used his influence with the king to promote the development of the mineral wealth of the kingdom. We are informed that during the late massacres he was the means of communication between the Burmese and Indian Governments, and that he was the

means of saving the Nyoung Yan Prince, his brother, and their wives and children. He was on his way home, when he fell a victim to typhoid fever in Italy at the age of 45. He is stated to have left some valuable MSS., which we trust may be available to illustrate the history of Upper Burmah, in which he took a deep interest, and of which he possessed unequalled knowledge. Mr. Williams is an instance of the loss of an invaluable public servant from too strict adherence to red-tape rules, and from the refusal to accord to a medical officer that indulgence which is constantly granted to military officers when they prove themselves, as he did, qualified for an important appointment.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having passed the required examination for the diploma, were duly admitted Members of the College at a meeting of the Court of Examiners on the 24th ult.:—

Crew, William Thomas, Macclesfield.
Davies, R. T. Edward, Aberavon.
Deane, Arthur Dorman, Henley-on-Thames.
Dickinson, Thomas Vincent, Sloane-street.
Falla, Walter, Jersey.
Hassan, Syed, L.R.C.P. Lond., Bedford-place.
Hine, John Edward, Draycott.
Ingledew, George, Girdlers-road, W.
Kirsopp, Thomas, L.S.A., Hexham.
M'Donnell, Denis, Pentonville-road.
Shaw, John, L.S.A., York-road, S.E.
Shears, C. H. Bedwell, Norwood, Surrey.
Sheild, Arthur Marmaduke, Gilfach.
Skinner, Bruce Moreland, Gloucester-crescent.
Steele, Warwick Charles, Dorchester.
Webb, John Gascoigne, St. George's-road.

The following gentlemen were admitted Members on the 25th ult.:—

Barling, Harry Gilbert, Newnham, Gloucestershire.
Clowes, Herbert Alfred, Sydney, New South Wales.
Cottell, Arthur Bowditch, Great Cheyne-row.
Cowan, Geo. Hoyle, M.B. Toronto, Canada.
Davies, James David, Merthyr Tydfil.
Emerson, Peter Henry, Teignmouth.
Harrison, Edmund Meredith, L.S.A., Brackley.
Hoskyn, Donald Templeton, Kilburn.
Lewis, Christopher John, Birmingham.
Neale, William Henry, Boundary-road.
Patterson, George Henry, L.S.A., Brighton.
Porritt, Norman, Huddersfield.
Schlesinger, Richard Emil, Melbourne.
Shapley, Frank, Torquay.
Shaw, William Wright, Kirkham, Lancashire.
Sherrard, Cæsar Dudley, L.K.Q.C.P.I., Tavistock-crescent.
Walton, Robert Spence, Hebden-bridge, Yorks.
Wray, George Bury, Nottingham.

The following gentlemen were admitted Members on the 28th ult.:—

Adams, Alexander Peers, Kingston.
Aske, William Percy, L.R.C.P. Lond., Linden-gardens.
Bond, Charles John, Lutterworth, Leicestershire.
Colborne, William Wriothesley, Camden-town.
Crook, John Siddon, Northfleet, Kent.
Faulkner, Joseph, Ipswich.
Ford, Richard William, Portsmouth.
Haig, Alexander, Torquay.
Morse, Richard E. R., Cheltenham.
Nadin, Joseph, Sheffield.
Newsholme, Arthur, L.S.A., Bradford, Yorks.
Parker, Hibbert Sullivan, Putney.
Phillips, John, Brighton.
Pope, Frank Montague, Brighton.
Saunders, Francis Henry, Haverfordwest.
Thompson, Edward Charles, Hull.
Vivian, Richard Thomas, Camborne.

The following gentlemen were admitted Members on the 29th ult.:—

Baker, William James, Millbrook, Southampton.
Bowlby, Anthony Alfred, L.S.A., Warrington-crescent.
Cuthbert, C. Firmin, L.S.A., Mendlesham, Suffolk.
Easmon, John Farrell, Sierra Leone.
Grimoldby, George Henry, Tetney, near Grimsby.
Harwood, John Casson, Boston, Lincolnshire.
Hubbard, Henry William, Plymouth.
Pope, H. F. Montagu, West Malling.
Smith, John, L.S.A., Plumstead-road.
Spackman, Henry Robert, Wolverhampton.

The following gentlemen were admitted Members on the 30th ult.:—

Banks, William, Falmouth.
Butler, Herbert Paton, Gipsy-hill.
Clark, W. T. Marston, Twickenham.
Cronk, Herbert George, Sevenoaks.
Graves, Thomas William, L.S.A., Leominster.
Hardy, H. L. Preston, L.S.A., Finchley.
Howard, Henry, M.B. Cantab., Cambridge.
Lawton, John Wesley, Torquay.
Lindeman, Sidney Herbert, L.S.A., Hammersmith.
Read, Mabyn, M.B. Cantab., Falmouth.
Ross, Ronald, Punjaub, India.
Walker, Horatio Edw., L.S.A., Corwen, North Wales.
Williams, Patrick St. George, Compton-road, N.
Williams, William Rees, Ruthin, North Wales.
Wright, Herbert Elliston, Edwardstone, Suffolk.
Yate, Henry Wright, Godalming, Surrey.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on July 24th:—

Butterworth, John Tingle, Mossly, Birmingham.
Henderson, Cecil, Pembridge-road, Clifton.
Parsons, Herbert Flower, Frome, Somersetshire.

The following gentlemen on the same day passed the Primary Professional Examination:—

Walter Stanley Barnes, University College; George Ingensoll Currah, Guy's Hospital; Frederick William East and Henry Clark Wilson, London Hospital; Thos. Percy Taylor, St. Bartholomew's Hospital; Joseph Tucker, St. Mary's Hospital.

DR. SIEVEKING will resign his chair as an Examiner in Medicine at the College of Surgeons at the close of the examinations now going on, consequent on his election as Senior Censor of the Royal College of Physicians. A meeting of the Council of the College of Surgeons will be held next Thursday, to nominate candidates from Fellows of the Royal College of Physicians.

WATER-SUPPLY OF TOWNS.—The Town Council of Wakefield recently passed a resolution in favour of procuring water from the Rishworth moors, near Todmorden, at an estimated cost of £160,000. The Keswick Local Board and Urban Sanitary Authority having decided to purchase the local waterworks for £7250, a meeting of owners and ratepayers has been held, and a confirmatory resolution carried.

BEQUESTS ETC. TO MEDICAL CHARITIES.—Mrs. Amelia Idle, of Shopwyke, bequeathed £1000 to the West Sussex, East Hants, and Chichester General Infirmary and Dispensary. Mr. George Hamilton Fletcher, formerly of Liverpool, but late of Carshalton, bequeathed £500 each to the Birkenhead Borough Hospital, the Liverpool Royal Infirmary, the Liverpool Northern Hospital, and the Liverpool Southern Hospital. The Sussex County Hospital, Brighton, has received £900 under the will of Mrs. Selby Hele. The East London Hospital for Children has received £270 under the will of Mr. C. King, of Bebington. The Charing-cross Hospital has received £120 from the trustees of the Craven Charity. Mr. James Grant, of Cornwall-road, Westbourne-park, bequeathed £500 to the National Hospital for the Paralysed and Epileptic, upon the death of his daughters. The Rev. Dr. John Griffith, bequeathed £200 Consols each, to the Earlswood Asylum for Idiots, and the Brompton Hospital for Consumption. Mr. Edward B. Farnham bequeathed £100 each to the Leicester Infirmary and the Loughborough Dispensary. The Clothworkers' Company have given £105 to the London Hospital. The Mercers' Company have given fifty guineas to the building fund of the Chelsea Hospital for Women.

Medical Appointments.

APPLEBE, E. A., L.R.C.P.Ed. & L.M., L.F.P.S.G., has been appointed Medical Officer of Health for the Hay Urban Sanitary District, Medical Officer for the Radnorshire District of the Hay Union, and Medical Officer to the Ancient Order of Foresters, vice Clouston, resigned.

CALDWELL, S., L.K.Q.C.P.I., L.R.C.S.I., has been appointed Certifying Factory Surgeon for the District of Virginia, co. Cavan.

CLARK, J. G., M.R.C.S.E., L.S.A.L., has been appointed a House-Surgeon to the London Hospital.

CLARK, W. W., M.D., M.R.C.S.E., L.S.A.L., has been reappointed Medical Officer of Health for the Wellingborough Urban Sanitary District, at £30 for one year.

COLLINS, F., M.D., L.R.C.S.Ed., has been appointed Resident Medical Officer to the Charterhouse, vice Nicoll, deceased.

CROCKER, H. R., M.D., M.R.C.P.L., has been appointed Physician (Skin Department) to University College Hospital, vice Fox, deceased.

CUMMING, G. W. H., L.R.C.P.Ed., has been appointed House-Surgeon to the West London Hospital, vice Mortimer, resigned.

DEWSNAP, W., M.R.C.S.E., L.S.A.L., has been appointed Certifying Factory Surgeon for the District of Hammersmith.

HEYGATE, W. H., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer and Public Vaccinator for the Sandford District of the Crediton Union, vice Deans, resigned.

HILL, F. A., M.D., L.R.C.P.L., M.R.C.S.E., has been appointed Medical Officer for the Out-door Poor in the Kilburn District, St. John's Parish, Hampstead, vice Morton, resigned.

JEFFERSON, W. D., L.R.C.P.Ed., M.R.C.S.E., has been appointed Certifying Factory Surgeon for the District of Ripon, vice Frankland, resigned.

LYLE, T., M.D., has been appointed Physician to the West of England Institution for the Deaf and Dumb, St. Leonards, Exeter, vice Shapter, resigned.

O'FARRELL, H., M.D., F.R.C.S.I., has been appointed Certifying Factory Surgeon for the District of Boyle, co. Roscommon.

OWEN, R., L.R.C.P.Ed., L.R.C.S.Ed., & L.M., has been appointed House-Surgeon to the County and Brecon General Infirmary, vice Johnstone, resigned.

PARSONS, J., M.R.C.S.E., L.S.A.L., has been reappointed Medical Officer of Health for the Frome Urban Sanitary District, Somersetshire, for one year.

PARSONS, J. F., M.R.C.S.E., L.S.A.L., has been appointed Certifying Factory Surgeon for the District of Frome, vice Hurd, deceased.

PEACOCK, H. G., L.R.C.P.Ed., M.R.C.S.E., has been appointed an Assistant Medical Officer to the Dorsetshire Lunatic Asylum, near Dorchester, vice Bland, appointed Resident Medical Superintendent of the Portsmouth Lunatic Asylum.

POTTS, E., M.R.C.S.E., L.S.A.L., has been appointed Assistant-Surgeon to the Gateshead Dispensary, vice Hendry, resigned.

REID, J. C., M.D., has been reappointed Medical Officer of Health for the Newbiggin Urban Sanitary District, Northumberland.

RUNDLE, E., L.R.C.S.I., has been appointed Medical Officer and Public Vaccinator for the Cheriton-Fitzpaine District of the Crediton Union, vice Ryley, resigned.

SANDELL, H. W. A., L.R.C.P.Ed. & L.M., M.R.C.S.E., has been reappointed Medical Officer of Health for the Leighton-Buzzard Rural Sanitary District, at £52 for one year.

SMITH, F. A., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer and Public Vaccinator for the No. 2 District of the Malling Union, vice Wimble, deceased.

SYME, C., L.R.C.P.Ed., L.F.P.S.G., has been appointed Certifying Surgeon for the District of Bridge of Weir, Renfrewshire, vice McLaren, deceased.

THOMPSON, J., M.D., L.K.Q.C.P.I., L.R.C.S.I., has been appointed one of the Medical Officers in Ordinary to the Leamington Provident Dispensary. Also reappointed Surgeon to the Borough Police Force, Royal Leamington Spa.

WILSON, A. F., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the Dunchurch District of the Rugby Union, vice Drew, resigned.

WILSON, J., M.D., C.M., has been appointed Certifying Factory Surgeon for the District of Johnstone, Renfrewshire, vice McLaren, deceased.

Births, Marriages, and Deaths.

BIRTHS.

AUSTIN.—On the 23rd ult., at Allenvale Cottage, Tongue, Sutherlandshire, the wife of J. Alfred Austin, M.D., of a daughter.

CREAN.—On the 21st ult., at Bury New Road, Manchester, the wife of Richard Crean, L.K.Q.C.P.I., of a daughter.

EATON.—On the 20th ult., at Cleator Moor, the wife of John Eaton, M.D., of a son.

NOBLE.—On the 24th ult., at Kendal, the wife of Samuel C. Noble, M.R.C.S.E., of a son.

PHILLIPS.—On the 29th ult., at Broadwater House, Southend, Essex, the wife of Edward E. Phillips, L.R.C.P., M.R.C.S., of a daughter.

PHILPOT.—On the 20th ult., at Cirencester, the wife of Harvey J. Philpot, L.R.C.P.L., of a son.

PHILPOT.—On the 23rd ult., at South Eaton-place, the wife of Joseph Henry Philpot, M.D., of a son.

THOMAS.—On the 20th ult., at Pocklington, the wife of George H. W. Thomas, M.R.C.S.E., of a daughter.

TOWNSHEND.—On the 25th ult., at Heathfield House, Eastbourne, the wife of C. B. Townshend, L.K.Q.C.P.I., of a son.

WHITLING.—On the 25th ult., at Croydon, the wife of H. Townsend Whitling, of a daughter.

WYLIE.—On the 23rd ult., at Skipton-in-Craven, the wife of William Wylie, M.D., of a son.

MARRIAGES.

BOUSTEAD—WILLIAMSON.—On the 22nd ult., at St. Paul's, Edinburgh, Robinson Boustead, F.R.C.S.E., Surgeon-Major, Indian Army, to Katie, daughter of Thomas Williamson, M.D.

GREEN—FOX.—On the 24th ult., at the Friends' Meeting House, Holloway, T. Henry Green, M.D., of 74, Wimpole-street, London, to Charlotte Maria, daughter of the late Samuel Lindoe Fox, and stepdaughter of Philip Debell Tuckett, of Southwood Lawn, Highgate.

DEATHS.

FAIRCLOTH.—On the 21st ult., at his residence, Billing-road, Northampton, John Faircloth, M.D., Senior Physician to the Northampton General Infirmary.

GOSS.—On the 18th ult., at Heavitree, Exeter, James Goss, M.R.C.S.E., formerly of Bishopsteignton, aged 78.

KAYE.—On the 22nd ult., at Stand-lane, Radcliffe, Lancashire, Ralph Holt Kaye, M.R.C.S.E., aged 72.

MOULD.—On the 28th ult., at Plymstock, Devon, William Pattison Mould, M.R.C.S.E.

OSMOND.—On the 26th ult., at Thorpe-le-Soken, Essex, Thomas Osmond, M.R.C.S.E., aged 37.

RIGBY.—On the 24th ult., at North-road, Preston, John Rigby, M.R.C.S.E., aged about 50.

WARE.—On the 25th ult., at Southampton, J. R. Ware, M.R.C.S.E., aged 79.

N.B.—*A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*

Notes, Short Comments, and Answers to Correspondents.

BLUSHING AND BLANCHING.

BLUSHING is occasioned by sudden dilatation of the small blood-vessels, which form a fine network beneath the skin and when they admit an increased volume of red blood cause the surface to appear suffused with colour. Blanching is the opposite state, in which the vessels contract and squeeze out their blood, so that the skin is seen of its bloodless hue. The change effected in the size of the vessels is brought about by an instantaneous action of the nervous system. This action may be induced by a thought, or, unconsciously, by the operation of impressions producing the phenomenon habitually. In a word, blushing may become a *habit*, and is then beyond the control of the will, except in so far as the will can generally, if not always, conquer any habit. It is almost always useless, and certainly seldom worth while, to strive to cure a habit of this class *directly*. The most promising course is to try to establish a new habit which shall destroy the one it is desired to remedy. For example, if blushing is, as generally happens, associated with *self*-consciousness, we must establish the sway of the will over that part of the nervous system which controls the size of the vessels, by calling up a feeling opposed to *self*-consciousness. It is through the mind these nerves are influenced. Then influence them in a contrary direction by antagonising the emotion associated with blanching! Thus if the feeling which causes the blushing be expressible by the thought, "Here am *I* in a false and humiliating position;" oppose or, still better, anticipate and prevent, that thought by thinking, "There are *you* daring to pity or feel contempt for another." Avoid going on to think who that "other" is, because the aim must be to eliminate self. Constitute yourself the champion of someone, anyone, and everybody, who may be pitied, and the ever-zealous and indignant foe of those who presume to pity. Most persons who blush with self-consciousness blanch with anger, and this artificial state of mock anger will soon blanch the face enough to prevent the blush. It only requires practice in the control of the emotions and the production of particular states at will—the sort of expertness acquired by actors and actresses—to secure control of these surface phenomena. Blushing and blanching are antagonistic states, and may be employed to counteract each other, control of the physical state of the blood-vessels being obtained through the emotions with which they are associated.

Mr. G. Elder's paper shall appear in an early number.

NITRITE OF AMYL IN SEA-SICKNESS.

To the Editor of THE LANCET.

SIR,—As the nitrite of amyl is now very highly spoken of as a remedy for sea-sickness, I should like to give my experience of it in one case, and at the same time, and more importantly, to decry its indiscriminate use by the public especially. It is now sold in boxes of glass capsules, for which an exorbitant price is charged, and the dose put up in those I have seen is far too large.

I gave one of the capsules to a gentleman on board-ship, who was feeling very sick and ill. I saw the establishment of the physiological action in the flushing of the face, and he at the time told me he saw numbers of black specks before his eyes. But in his case violent vomiting and retching came on at once. Knowing that there was an overdose in each capsule, I did not allow him to inhale the whole of it. It may be, however, that he got an overdose, and that nature resorted to vomiting to rid herself of the poison.

But, again, the effect is only temporary; the sympathetic recovers its tone over the vessels, and the patient is as he was before. Is it then advisable to continue inhalation two or three times in the day? The effect of the remedy is so disagreeable that for my part I would rather get over my day or two of occasional vomiting without it. The dangers connected with its indiscriminate use are, in my opinion, great. In cases, for instance, of diseased cerebral arteries, the rapid and extreme dilatation would, I should say, tend very much to produce rupture.

I am, Sir, yours faithfully,

Madeira, July 16th, 1879. C. R. ILLINGWORTH, M.B.

"MORE ARSENICAL POISONING."

To the Editor of THE LANCET.

SIR,—In the annotation headed as above in your issue of July 19th, you omitted to mention one use of French chalk which has become very general, and, in case of adulteration with arsenic, would be far more dangerous than dusting new boots—i. e., coating tasteless pills. Should French chalk containing 40 per cent. of arsenic by any chance be used in the process, the results would be most disastrous. It, therefore, behoves manufacturers of tasteless pills to satisfy themselves and the profession that the French chalk they use is free from adulteration.

I am, Sir, yours &c.,

J. BROOKES, L.R.C.P.E.,
Officer of Health, Wellington (Salop) Urban District.

July 22nd, 1879.

SUGGESTIONS FOR MEDICAL LEGISLATION.

Dr. Bernard O'Connor, of Welshpool, makes the following proposition:—Dissolve the present Council, and arrange that its successor shall be composed of the same number of members as there are thousands of names on the Register. Assume 22,000 to be about the present number, the new Council would then consist of twenty-two members, who should be registered medical practitioners, and elected by the profession. Dr. O'Connor makes a further ingenious suggestion for having a Council elected by practitioners, according to the first in date of their qualifications. Thus, 831 qualifications being taken at random from twenty-two pages of the Medical Register—the first or only qualification being taken,—the respective numbers were as follows:—

1.	College of Surgeons, London	295
2.	College of Surgeons, Dublin	100
3.	Apothecaries' Hall, London	85
4.	College of Surgeons, Edinburgh	64
	University of Edinburgh	56
	Apothecaries' Hall, Dublin	41
	Faculty of Physicians and Surgeons, Glasgow	40
	University of Glasgow	33
	Queen's University	25
10.	College of Physicians, Edinburgh	24
	University of Dublin	21
12.	College of Physicians, Dublin	14
	University of Aberdeen	12
4.	College of Physicians, London	9
	University of St. Andrews	6
16.	University of Cambridge	3
17	University of London	2
18	University of Durham	1
19.	University of Oxford	0
		831

The lion's share of the representation here would fall to the College of Surgeons. We could not approve of such a result; neither, indeed, does Dr. O'Connor, though his figures have interest at this moment.

Dr. Robert Fowler, of Bishopsgate-street Without, suggests that "a 'final examination' in Medicine, Obstetrics, and Surgery by a Conjoint Board in each division of the kingdom, appointed, say, partly by the Privy Council, and partly by a more truly representative Medical Council (or more directly by the professional Corporations), would obtain the confidence of the public in the competency of what is called the general practitioner or the family doctor. The sole qualification for admission to such 'final examination' should be certificates obtained from any one or more of the Corporate Bodies or Universities mentioned in Schedule A aforesaid, testifying that the candidate had successfully passed such examinations in Arts, and in all those preliminary professional subjects (viz., Anatomy, Physiology, Pharmacy, Materia Medica, Botany, and Chemistry) as in the judgment of the profession, expressed by the General Medical Council, it is necessary for all intended practitioners to have a competent knowledge of; together with, of course, evidence of the candidate having had sufficient opportunities of acquiring a practical acquaintance with every branch of the profession."

Electrization.—We must refer our correspondent to the published works on this subject for the information he desires.

TREATMENT OF FRACTURES BY THE PLASTER-OF-PARIS SPLINT.

To the Editor of THE LANCET.

SIR,—Some time since there appeared in your journal an account of a clinical lecture delivered by Mr. Croft on the Treatment of Fractures by the Plaster-of-Paris Splint. From the appearance of that lecture I have abandoned the "plaster apparatus" as commonly used. I found, however, that patients still complained of the weight of the flannel and plaster. On this account I have now used the following mode of dressing in my last seven cases, three of fractured thigh and four of the leg. The process is as follows:—A dry bandage of German gauze, three inches wide, is firmly bound around the limb, the latter having been *thickly* padded with cotton-wool only upon either side (to the padding is added, if strength is particularly required, one or two layers of millboard). When two complete thicknesses of gauze have been smoothly applied, a layer of "plaster-cream" is smeared on about 1-16th of an inch thick; two more layers of gauze are applied, another layer of "cream" is laid on, and the splint is complete. The plaster is, of course, only put upon the sides of the limb, as suggested by Mr. Croft, and the two joints contiguous should be enclosed as is generally recommended. As soon as the plaster is dry, it should be split up, a common roller applied and drawn tight, and the patient put upon crutches. I have had simple fractures of the leg walking within twenty-four hours after the reception of the injury.

The only advantage I claim for the splint is its great lightness; while it is very solid, and fits, necessarily, the limb to perfection.

Yours respectfully,

OSCAR J. COSKERY, M.D.,
Professor of Surgery, College of Physicians and Surgeons,
June, 1879. Baltimore, Maryland, U.S.A.

LUNATICS IN IRISH WORKHOUSES.

THE recommendations of the late Poor Law and Lunacy Inquiry Commissioners being at present under the consideration of the Government, and it being a portion of such recommendations that the increasing numbers of lunatics, of limited or of no means, who are classed as incurables, should be provided for in portions of the fifty-five workhouses throughout Ireland, the grand jury of the county Roscommon have submitted a statement to the Lord Lieutenant deprecating such a solution of the difficulty. They state as objections that in the workhouses in question, either there would be a compelled intercourse between the sane and the insane, or the present inmates would be deprived of some portion of the space already allotted; and that either the insane would lose that special skill which they now receive, or applied to them it would involve unnecessary expense. They suggest that some of the workhouses should be used as auxiliary asylums for the class of cases referred to, and that by such an allocation the inconveniences alluded to would be avoided, and a much larger saving effected than by the plan which the Commissioners have recommended.

Mr. C. C. Lewis's communication arrived too late for insertion this week.

BURMESE ITCH.

To the Editor of THE LANCET.

SIR,—During my service in Burmah I was familiar with the above disease. It is most intractable, and sometimes, while the patient remains in the tropics, incurable. It is commonly caused by careless drying after tubbing. Goa powder is, as a rule, the best remedy, but may fail when other measures succeed. After epilation, an ointment of iodide of sulphur with an equal quantity of an ointment of biniodide of mercury (half the strength of the B.P.), applied *after* the parts have been washed with lime-juice, acts remarkably well. Vaseline, as suggested by a writer in your last week's issue, may be used as a vehicle. Sulphur injected subcutaneously has been followed by cure. A weak solution of bichloride of mercury, with a little diluted hydrocyanic acid and spirit of chloroform, while assisting other remedies, will relieve the itching and procure sleep. Soothing poultices have the same effect. If the disease is of long standing, all local applications will very likely fail without strict attention to the following rules:—1. Religious abstinence from all alcoholic stimulants and heating curries. Potash-water is the best drink. 2. Avoidance of horse exercise and other sources of local irritation. 3. The immediate removal in the first instance from Burmah, if the disease is contracted there, or from the west coast of India, where similar relaxing climatic conditions prevail, followed as soon as possible by change from the hot and sultry plains of India to the cool and bracing climate of the hills, where constitutional means, directed as well to the improvement of the general health as to the disease under consideration, will be followed by improvement and cure.

Your obedient servant,

D. H. CULLIMORE, F.R.C.S., &c.
Devonshire-street, Portland-place, July 28th, 1879.

Alpha.—The M.B. does not entitle to the prefix "Doctor." As our correspondent will find on reference to the bye-laws of his University, that title belongs to another degree.

Dr. Charteris.—The lecture is marked for insertion.

THE CASE OF THOMAS MILLERCHIP.

To the Editor of THE LANCET.

SIR,—The undermentioned sums have been forwarded to me. The subscribers have asked for acknowledgment.

J. H. Crisp, Esq., Lacock, Wilts	£1	1 0
Dr. Green, Alderton, Woodbridge	0	10 0
James Milward, Esq., Cardiff	1	1 0
Dr. C. R. Renshaw, Beech Hurst, Ashton	2	0 0
Dr. Glover, Highbury	1	1 0

The total amount which has reached me is £60 10s.

I am, Sir, yours obediently,

33, Dean-street, Soho, July 23rd, 1879. JOSEPH ROGERS.

Mr. Musgrave.—We have no interest in dentistry except as a special branch of surgery, and cannot recognise dentists who are not surgeons.

APOPLEXY OF THE RETINA.

To the Editor of THE LANCET.

SIR,—The remarks in THE LANCET on Dr. Althaus's account of apoplexy of the retina suggest the propriety of my sending the following case, which I hope you will insert.

On the 28th of October, 1878, I attended Mrs. B—— in her first confinement. Labour being difficult, I applied the short forceps, and accomplished delivery at 8 A.M. During delivery the left retina became suffused with blood. This case being one of simple retinal apoplexy, I ordered cold applications, and had the room darkened. The clot was completely absorbed in about ten days.

I have had lately a case of loss of sight following labour, gradually returning under constitutional treatment.

I am, Sir, your obedient servant,

Whitwick, Leicester, July 16th, 1879. WILLIAM DONOVAN.

MEDICAL TREATMENT OF THE INDUSTRIAL CLASSES IN THE METROPOLIS.

THE Provisional Committee lately appointed in the metropolis for promoting the medical treatment of the industrial classes on provident principles has appointed a Sub-committee to prepare the first draft of a scheme. The Sub-committee is to consist of Mr. Stansfeld, Sir Chas. Trevelyan, Sir Rutherford Alcock, Mr. Timothy Holmes, Mr. C. Radley, Mr. R. Frewer, and Mr. R. Herne. The Sub-committee will hold its first meeting in November.

Mr. John Truman.—We scarcely think the letter would be expedient.

FREE AND PROVIDENT DISPENSARIES.

To the Editor of THE LANCET.

SIR,—I agree with Dr. Dewar that we might do much to reduce our drug bills at dispensaries by such substitutions as he suggests; but still there are many cases that require expensive medicines, and these, I contend, are more likely to be supplied at old, well-endowed free dispensaries than at provident ones, where there is such a strong inducement to cut down expenses. Since I wrote upon the junction of free and provident dispensaries, I have been told by Dr. Tebay that at Westminster and St. George's Hospitals it was recently proposed that the provident principle should be introduced, and that the proposal was rejected almost unanimously. I cannot see any reason for converting a good old charity like the Surrey Dispensary into a remunerative business. Its object is to give to those who cannot pay a fee first-rate advice and medicines and surgical treatment and appliances, and it is quite intelligible that a physician or surgeon should be willing *to give* to such persons a guinea's worth of their time and skill, and yet unwilling *to sell* the same for a few pence. Charity is the object of the old free dispensaries; money-making that of provident ones. In proof of this I may state that the Secretary of the South London Medical Aid Institute sent us a few days ago a letter, asking us to post in the waiting-rooms of the Surrey Dispensary placards, informing our patients that for a few pence they can, without letters, get advice and medicines at the institute, 300, Waterloo-road, S.E. The Secretary says we must have many who can pay, and that, by sending these to the institute, we should relieve ourselves of much work. Those who have money to spare, it seems, they will be happy to take, and those who have not we may retain! I would say to the former, "If you can pay a fee, go to a respectable medical man." The provident dispensary says, "Come to us." Which, I ask, is the general practitioner's real enemy? The South London Institute seems bent on getting a certain class of patients entirely in the hands of its own doctors, leaving none for the great body of South London practitioners! These gentlemen have always regarded the Surrey Dispensary as their enemy. What will they say to "the institute"?

Yours truly,

DANIEL HOOPER, B.A., M.B. Lond.,
Senior Physician to the Surrey Dispensary.

Trinity-square, S.E., July 14th, 1879.

To the Editor of THE LANCET.

SIR,—Your correspondent, Dr. Dewar, must have been acquainted with a very badly regulated provident dispensary, since he states that patients need only join when ill, and can cease paying when well. In every well-regulated provident dispensary a fine of 5*s.* is exacted from those who defer joining till the last moment, and a fine of 1*d.* per week is demanded of those who neglect their monthly payments; whilst a period of arrear of six weeks entails forfeiture of membership and a fresh entry, if the Committee permit it.

Your obedient servant,

FREDK. SIMMS,
Honorary Consulting Physician to the Twickenham Provident Dispensary.

Victoria-street, Westminster, July 15th, 1879.

Mr. T. E. Cahill.—The light in an operating theatre ought always to come from above.

T. K.—We are not aware that it is as our correspondent states nor do we see how the existence of the defect mentioned would be known.

Mr. Masterman.—In the course of a week or two.

BROMO-HYDRIC ACID IN THE TREATMENT OF CHRONIC ULCER OF THE STOMACH.

To the Editor of THE LANCET.

SIR,—If you can afford me space, I wish to direct attention to the utility of bromo-hydric acid in the treatment of chronic ulcer and probably other painful diseases of the stomach. I have found it arrest the obstinate vomiting attendant on these diseases when all other means had failed, thus enabling the stomach to retain food and medicines. I am now employing it successfully in a case which was rapidly succumbing to the sickness alone, and the man is gaining flesh. On substituting bromide of potassium, the sickness returns, and is again arrested by reverting to the acid, showing apparently some specific property of the acid, in this direction, not shared by the salt. By thus resting the stomach, bromo-hydric acid favours the administration of other remedies, and must expedite the cure when the case admits of it. I give twenty minims to half a drachm in an ounce of water every two hours at first, gradually reducing it to three or four times a day.

I am, Sir, yours truly,

Albert-street, Regent's-park, July, 1879. LOUIS LEWIS, M.D.

ROYAL COLLEGE OF SURGEONS OF ENGLAND: PASS EXAMINATIONS.

THE following were the questions on Surgical Anatomy and the Principles and Practice of Surgery submitted to the candidates at the pass examination for the diploma of Member of the Royal College of Surgeons on the 18th ult., when they were required to answer at least four, including one of the first two, out of the six questions:—

1. Describe the general arrangement of the cervical fascia, and point out how it determines the course of purulent collections in the neck.
2. *After* ligature of the common femoral artery, by what arteries would the collateral circulation be carried on?
3. Describe the anatomical conditions which characterise talipes varus and valgus.
4. Give the causes, effects, and treatment of acute periostitis.
5. Describe how you would investigate a case of retention of urine in the male, in order to discover its cause.
6. In what parts of the lachrymal passages, and by what causes, may obstruction be produced? Describe the symptoms and treatment of such cases.

The following were the questions on the Principles and Practice of Medicine submitted to the candidates on the following day:—

1. What are the causes, symptoms, and pathological consequences of abscess of the kidney? By what routes may such abscesses discharge themselves?
2. What are the causes of regurgitant mitral valve disease? How would you detect its presence? and what are its pathological and clinical consequences?
3. Describe the physiological and therapeutical effects of opium, and enumerate the pharmacopœial preparations in which opium or morphia is present, stating their strength in opium or morphia, and their usual doses. Write a prescription for a child suffering from summer diarrhœa.

Mr. Walthew should address his inquiry to the gentleman to whom he refers; his place of residence will be found in the Medical Directory.

Jurisprudence.—Not always perceptible.

G. S.—It is against our rule to name physicians or surgeons for special cases.

ON CERTAIN FRACTURES OF THE SKULL.

To the Editor of THE LANCET.

SIR,—In your issue of June 21st there is a letter from Professor Logan, of New Orleans, U.S.A., claiming priority in the explanation of an occurrence on which I have written, and which I have called "The more Extensive Splintering of one than the other Table in certain Fractures of the Skull." Professor Logan's claim is evidently just, though I believe very few in this country have seen his article on "Injuries of the Head" in the *New Orleans Medical and Surgical Journal*. My object, however, in this letter is not to deal with the matter of priority, but to correct a misinterpretation of my paper which Professor Logan has not been careful enough to avoid. Referring to my paper, he says: "I am pleased to find that the author, Gilbert Kirker, M.D., M.R.C.S.E., offers precisely the same explanation in regard to the differences usually found between the orifices of entrance and exit in gunshot wounds in general, as had already been some time advanced by myself." Now, I only treated of "certain fractures of the skull"—not even especially of gunshot fractures of the skull,—and not of "gunshot wounds in general."

In accounting for the differences between the orifices of entrance and exit of gunshot wounds *in general*, the explanation founded on *relative support* is not always equally applicable. In bones these orifices differ mainly on account of it; while in the skin its effect is but little felt. Permit me to quote here a passage from an article relating to experiments with the cylindro-conoidal and round bullets, which I have not yet published: "Just when a cylindro-conoidal bullet wound is produced, it is always possible by an examination to tell the opening of entrance from the opening of exit; but very soon changes take place, if vital action continues, and if the bullet has not been altered in shape, or has not carried a piece of bone before it, it becomes impossible in many cases to tell at which orifice the bullet entered or from which it emerged. At the hospital in Adrianople I was very often unable to find out, without the statement of the patient, which was the wound of entrance and which the wound of exit; and in most cases in which a difference was apparent, I believe that was due to the bullet having been altered in shape, or to a splinter of bone having been pushed out. I think the relative want of support to the skin at the exit opening has little influence in the matter. The elasticity and toughness of the skin lessen greatly the operation of *relative support* as a cause of the differences between the openings of entrance and exit; besides, the skin at the entrance opening, unless when covering a bone, is but poorly supported by the soft parts. With regard to the characters of the fresh bullet wounds, the orifice of entrance is a round hole with an even margin, the skin being a little inverted; and the orifice of exit, if the bullet has only traversed soft tissues, is a roundish wound with an uneven margin, and filled with subcutaneous cellular tissue. The orifice of exit also often appears the smaller; in it there is, I believe, less destruction of tissue, and, as far as my experience goes, it is more easily healed. If, however, the bullet has struck against a bone, and, as often happens, has had its shape altered, or has carried a splinter before it, the wound of exit may be large and very irregular; it may even be double."

I remain, Sir, yours truly,

Templepatrick, co. Antrim, July, 1879. GILBERT KIRKER, M.D.

SANITARY REFORM IN DUBLIN.

THE Local Government Board has sanctioned the raising of a loan of £30,000 for completing the sewerage of Dublin. To this important local news we may add that in all probability the overcrowded burial-grounds of St. John's and St. Werough's will be closed. A Convalescent Home for infectious diseases is in course of preparation, and eight additional police constables have been appointed to attend exclusively to sanitary matters. We may, therefore, look forward to some improvement of a permanent character in the public health of Dublin.

Mr. W. Akerman.—The list would not be of much value apart from a study of the rejections.

Delta will find full information as to lectures &c. in the Students' Number of THE LANCET.

Enquirer.—No; legally the schedule must be signed.

MEDICAL EXAMINATIONS AT THE UNIVERSITY OF DURHAM.

To the Editor of THE LANCET.

SIR,—I was somewhat amused at Mr. Crick's letter in your issue of July 19th. It is only the puerile effusion we so often see from newly-fledged graduates who are in love with their *alma mater*. What broad and liberal views we have! I even heard the other day of an Irishman saying that the M.D. of Queen's University was equal to that of London University. Well, perhaps it is so, but I never heard it before. I never have heard of the Durham examinations being challenged, and I trust they do not encourage their graduates to become trumpeters. If so, we must conclude there is reason for it.

Mr. Crick in his letter alludes to my communication to you a few weeks ago. I am sorry you could not find room for it. My only object was to show how the Durham University might be of immense benefit to English practitioners, fill its coffers, and prevent us seeking foreign honours. Surely, Sir, if a man must be forty years of age before he is worthy of the honour of a M.D. degree, the older Universities are sinning immensely. I always thought that age carried honour and respect, and was not a sign of examinational knowledge.

My argument was, why wait till a man is forty years of age if he has been fifteen years in practice. Again, I think ten years might be the limit, and this would give a practitioner an opportunity of obtaining a degree when it would be of the most use to him. But fancy Mr. Crick's argument! He says: "Had Mr. Berry incurred the expense of living at Durham for a year, to say nothing of getting up the work for M.B., he would believe, as others do, that it is absolutely necessary to draw a line," &c. &c. Surely Mr. Crick must be beside himself. Durham cannot be any more expensive to live at than any place else, and the fees are not higher. But he says nothing of the man at forty paying fifty guineas. I believe, Sir, if the Senate would allow no modified examination, and take the same fees for the degree as they do from students, we have practitioners who would pass through the ordeal of the first and second M.B. and then the M.D. The London University loses nothing in prestige because it enforces no residence; and this is what the University of Durham should do—place itself within reach of those who aspire to a degree. By making their examinations stringent, and admitting practitioners of ten years' standing, the Senate of the University of Durham has an opportunity of benefiting those desirous of obtaining a medical degree, and would possess graduates that would do them credit, and in time there would be no necessity for such "trumpeting" as is displayed by your correspondent. It really looks like the letter of a man who has obtained a degree from a University he is in part ashamed of, therefore wishes to raise it in the estimation of his brethren.

I remain, Sir, yours &c.,

Wigan, July 21st, 1879. WM. BERRY.

To the Editor of THE LANCET.

SIR,—As Mr. Crick's statement, in your issue of the 19th July, that three out of four practitioners lately failed to take the degree of M.D. at Durham, may discourage others from going up, will you allow me to offer some practical hints to future candidates, which may aid and encourage them?

In the first place, they must make sure of their Latin. The examination in this subject is very exact, and more extensive than that required for the membership of the College of Physicians, where only a single passage is given for translation. Secondly, they must work up their Pathology carefully.

The other subjects will be more familiar to them, but must be thoroughly gone over. The books most useful are as follows:—Medical and Surgical Anatomy in Gray, Green's Pathology, Roberts's Medicine, Bryant's Surgery, Wilson's Hygiene, Blandford's Insanity, Playfair's Midwifery, Atthill's Diseases of Women, Guy's Forensic Medicine, Fenwick's Medical Diagnosis, and Heath's Surgical Diagnosis.

The candidate will find the examiners most fair; he will not be worried by any crotchets; he must expect to find local diseases at Newcastle, such as "miner's lung"; and he will be met by syphilis at every corner, as skin eruption and ulceration, in diseases of the eye, in children, and as gummata.

Any practitioner who has kept up with the times, and who has carefully prepared himself in each subject, may certainly go up with every prospect of success, and, when obtained, he will really have a good *English* degree, which has been worth working for.

I shall be happy to send to any gentleman the written questions given in 1877 and 1878. Your obedient servant,

Finchley-road, July, 1879. R. H. MILSON, M.D. Durham.

CERTIFYING FACTORY SURGEONS.

To the Editor of THE LANCET.

SIR,—In your number of July 12th a communication appeared from "C. F. S.," commenting on the sixpenny fee for medical certificates, which has been imposed during the current year by the amended Factory Act.

I think two opinions cannot for a moment be entertained by any unbiased person that such a fee for any medical purpose ought never to have been proposed, much less enforced, and heartily endorse his remark, "Le jeu ne vaut pas la chandelle." Surgeons holding small districts will prefer resigning to being subject to the annoyance and degradation of recovering them. Factory legislation is a sanitary measure. The Act was originally framed on the basis of medical evidence. The Report of the Royal Commissioners presented to the House of Commons said: "Its existence as well as its popularity are mainly due to the satisfactory manner in which medical men have carried out its requirements." Previous to the new Consolidated Act, visits within one mile of the surgeon's residence were paid 2*s.* 6*d.* each, and 6*d.* for each person examined. These are now included in one fee, and from one to five certificates may be demanded for the 2*s.* 6*d.* fee. Partly owing to the laxity of inspection and non-enforcement of the clause, "that certificates are to be given within eight days of first employment," and the inducement that five certificates may be obtained for the same fee as one, fresh hands are frequently worked for weeks, and in some cases months, before being certified. The cheese-paring reduction of medical fees has been a bribe to many employers of labour to evade the Act, and seems to be in a fair way to render it nugatory.

I remain, Sir, yours truly,

July, 1879. ANOTHER C.F.S.

To the Editor of THE LANCET.

SIR,—In reply to a note in THE LANCET of July 19th from a "Certifying Surgeon," I beg to state that he will find that in all factories where less than five young persons and children are employed, they may be examined at the residence of the surgeon or any place he may appoint, for which a fee of 6*d.* for each is allowed. When given at factories, 2*s.* 6*d.* is the fee for either one or five persons examined within a mile of the surgeon's residence, with an additional 6*d.* for every half mile. If a copy of birth register (which is now required in every case) cannot be obtained, the certificate at back must be filled up and sent to an inspector for the same *remunerative* fee of 6*d.* The Rules (alluded to by "Certifying Surgeon") contain the following instructions: "To consider age, health, and strength, with special reference to the character (according as it is severe, unremitting, unhealthy, or the reverse) of the work carried on in the factory or workshop in which such child is about to be employed, and to the hours of employment observed by children in the same factory." On the last point he is also instructed to "bear in mind the system of employment in morning or afternoon sets," having reference to "textile" and "non-textile" fabrics &c.

I do not wish to occupy more of your valuable space, but simply to state the facts, so that your readers may judge for themselves whether such fees are reasonable or not. Yours &c.,

July 24th, 1879. C.F.S.

Mr. H. E. Gifford.—The notice was received; but we did not see any reason to insert it.

H. B.—See advertising columns.

Subscriber.—Wilson's Handbook of Hygiene (Churchill).

W. P.—The filters are many. See the reply to a similar question last week.

CAUSELESS BLUSHING.

To the Editor of THE LANCET.

SIR,—Some time back there were some letters in THE LANCET (if I mistake not), dealing with the subject of causeless blushing in young women. I am interested in such a case, and am anxious to know what is the physiological (or pathological?) explanation of the phenomenon. The subject of it is a girl nearly eighteen, who is abroad at school, working pretty hard, not being over strong, and who complains of intense suffusion of the face &c. when spoken to, and oftentimes when she is not spoken to or looked at—e. g., when she is alone. She gapes a good deal, and has latterly been troubled with acne.

Some of your readers may be able to throw light on the subject.

Yours faithfully,

July 12th, 1879. Z. Y. X.

"LOCUM TENENS."

To the Editor of THE LANCET.

SIR,—In reply to "An Old Locum Tenens," I fear it is not so easy to get a trustworthy "locum" as he imagines, and I venture to say that where one "locum" has been "grossly deceived," &c., he will find a dozen practitioners that have been so, and with much worse results. Unfortunately for myself, I have been obliged to have four "locums" in my short period of practice; three of these, to say the least of it, were most unsatisfactory. Recently a friend told me he had "gone away for his health," and was summoned home by telegram; the "locum" was intoxicated. Another friend told me his "locum" *arrived* in a state of complete intoxication. These "locums" were all from leading agents.

I am sure that many general practitioners, including myself, would take an annual holiday, and not work to the "bitter end," if they could only be certain of getting a "locum" to whom they could in confidence leave their home and their practice.

I remain, Sir, yours truly,

July, 1879. A GENERAL PRACTITIONER.